UNITED STATES OF AMERICA

DEPARTMENT OF ENERGY

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NUCLEAR INFRASTRUCTURE

PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT

SCOPING MEETING

THURSDAY, OCTOBER 21, 1999

The meeting was held in the Conference Center,
Best Western Tower Inn, 151 George Washington Way,
Richland, Washington, at 7:00 p.m.

PRESENT:

JIM PARHAM, Facilitator

U.S. Department of Energy (DOE Headquarters)

COLETTE BROWN, PEIS Project Manager, Nuclear Energy, Science and Technology SHANE JOHNSON, Program Manager RAJ SHARMA, NEPA Compliance Officer CHRIS KARIS

U.S. Department of Energy (Richland, WA, Operations)

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Table of Contents

Facilitator:	Jim Parham		
Opening Statement:	Colette Brown		
Presentation:	Colette Brown		
Question and Answer Ses	sion:	p.	15
Formal Comment Session:			
State Representati State Senator Patr Larry Haler, Mayor Charles Kilbury, M	e Doc Hastings (WA) ve Shirley Hankins (WA) icia S. Hale (WA) , Richland, WA ayor, Pasco, WA	р. р. р. р.	32 32 36
Gerald R. Greenfie	ayor, Kennewick, WA ld	_	38 40
Mayor Pro Tem, 1		р.	10
Hal Lindberg		p.	41
Port of Benton (Jerry A. Peltier Mayor, West Ric		p.	43
Claude Oliver Board of Benton Commissioners	County	p.	45
Ken Dobbin	West Richland, WA	p.	46
Norm Englehart	ort of Kennewick (WA)	p.	50
Laurel Piippo		p.	52
Marjorie Maris Pet	erson	p.	56
John Boland		p.	59
Marlene Oliver		p.	63
National Associa	ation of Cancer Patient	s	
Gerry Pollet		p.	69
Heart of Americ	a Northwest		
George Jacobson		_	76
Bob Anderson		p.	79
Benton County (
	ntral Committee		0.1
Mark Beck	Olean Heatern Weakington	р.	81
Pamela Brown	Clean Eastern Washingto		85
Hanford Communi	ties	р.	0.5
Bob Schenter	CIES	n	88
	e Research Council	۲.	
Cindy Meyer		. q	92
Robert Franco		_	94
Benton/Franklin	County	Τ. •	- -

Medical Society

Table of Contents (Continued):

Formal Comment Session:

Susan Babilon Norm Buske Nuclear Weapons-Free America	_	. 95 . 98
Robert Beach Dave Watrous Columbia River Basin Chapter,	_	101 106
American Society for Metals		
International		110
Edward Siciliano	_	112
Dave Johnson		116
Rhean Souders		120
George Ruge		122
Sol Guttenberg		124
Gai Oglesbee Erin Gajarszki		128 133
Walt Apley		135
Bruce Klos		136
James Paglieri		140
Michael Contini		144
Wayne Baker		148
Siemens Power Corporation	р.	140
Tom Burke	n	150
Bill Martin	р. р.	
Tri-City Industrial Development Council	_	133
Sheryl I. Paglieri		155
Dick Hammond		157
Robert Burke	_	161
Melody Jenke		163
Marlene Oliver		164
Dick Ohava	p.	

Exhibits:

Exhibit No. 1 - Written comments of
U.S. Senator Slade Gorton
Exhibit No. 2 - Written comments of
U.S. Representative Doc Hastings
Exhibit No. 3 - Written comments of
State Representative
Shirley Hankins (WA)
Exhibit No. 4 - Written comments of
State Senator Patricia Hale (WA)
Exhibit No. 5 - Written comments of Mr. Haler
Exhibit No. 6 - Written comments of Mr. Kilbury

Exhibit No. 7 - Written comments of Mr. Beaver

Table of Contents (Concluded):

Exhibits:

```
Exhibit No. 8 - Written comments of Mr. Greenfield
Exhibit No. 9 - Written comments of Mr. Lindberg
Exhibit No. 10 - Written comments of Mr. Peltier
Exhibit No. 11 - Written comments of Mr. Oliver
Exhibit No. 12 - Written comments of Mr. Dobbin
Exhibit No. 13 - Written comments of Mr. Boland
Exhibit No. 14 - Written comments of Mr. Jacobson
Exhibit No. 15 - Written comments of Mr. Anderson
Exhibit No. 16 - Written comments of Ms. Brown
Exhibit No. 17 - Written comments of Mr. Culley
Exhibit No. 18 - Written comments of Ms. Babilon
Exhibit No. 19 - Written comments of Mr. Beach
Exhibit No. 20 - Written comments of Mr. Watrous
Exhibit No. 21 - Written comments of Mr. Ruge
Exhibit No. 22 - Written comments of Mr. Guttenberg
Exhibit No. 23 - Written comments of Ms. Oglesbee
Exhibit No. 24 - Written comments of Mr. Paglieri
Exhibit No. 25 - Written comments of Mr. Contini
Exhibit No. 26 - Written comments of Mr. Baker
Exhibit No. 27 - Written comments of Ms. Paglieri
Exhibit No. 28 - Written comments of Mr. Zimmerman
Exhibit No. 29 - Written comments of Ms. Burk
Exhibit No. 30 - Written comments of Mr. Troyer
```

<u>PROCEEDINGS</u>

THE FACILITATOR: Okay, we'll go ahead and get started. Good evening, and thanks for coming today to the U.S. Department of Energy's programmatic environmental impact statement meeting on accomplishing expanded civilian nuclear energy research and development and isotope production missions in the U.S., including the role of the Fast Flux Test Facility. And thankfully this is also known as the nuclear infrastructure PEIS, and if I refer to it, that's what I'll do this evening.

I'm Jim Parham, and I'm your facilitator tonight. It's good to be back. I always enjoy coming to meetings here; a very, very courteous and wonderful group to work with. We have a lot of people, as you can see in the audience tonight, who will want to get a chance to comment at the microphone. I'll go through all that explanation and bore you for a minute about how we'll get to that.

But most importantly, as a facilitator, I need to tell you that I'm not an employee of the Department of Energy, nor am I a representative of them. But I actually am a professor at Indiana University in Indiana, and work

in the area of park management, having responsibility at one time in my life for the national parks here in your area. So it's good to be back.

I've been asked to facilitate this meeting in an open and impartial manner, and I guarantee you I'll do that. I need to make sure that you leave here today feeling satisfied that DOE's provided you an overview of the proposed action analyzed in this PEIS, and answered some of your questions that you may have to the extent possible, and most importantly, given you an opportunity to comment on the scope of this PEIS.

I would really ask that you help me this evening in giving everyone a chance to comment. This means extending the courtesies that you want as a speaker and commenter to those up at the microphone. Sure, we're going to have some divergent viewpoints. You may not agree with what's being said, or whatever, but I can tell you I will be very, very concerned if we have people who are at the microphone and people are booing, hissing, clapping, or whatever. I'm really not interested in getting into that this evening. This is not a popularity contest. More importantly, it's very important because we have a court reporter over

here, and he has to hear what's being said, and if we don't have — if we can't hear, we can't get it down on paper, and that's what a big part of this meeting's about.

This is one in a series of seven scoping meetings to be held. Meetings were also held at Oak Ridge, Tennessee and Idaho Falls, and this week the Department of Energy folks have been on the road in Seattle, Portland, Hood River, and tonight in Richland. And there'll be one more meeting next week in Washington, D.C. I think you get a couple days off, and that may be welcome at this point.

The comment period began on September 15th, 1999 and runs through October 31st, 1999. Let me repeat that. The closing date on the comment period on this is October 31st, 1999. Comments received after that date will be considered to the extent practicable.

These hearings are just one way that you can provide input to DOE on the proposed action addressed in the PEIS. And up here on the board I show a few other ways that are also in your packet.

DOE, to me, seems to do a good job of providing ways to get information to them via nontraditional means

such as e-mail, faxes, or you can go the snail-mail route as traditional mail, or whatever.

But you also have a comment form in your packet tonight which is a really good opportunity to fill it out here and hand it to someone at the front desk, or to Charlotte, who's here, or Sydel, who's up here; and/or as you give written comments at your microphone and you want me to take them, Charlotte and I, or someone, will be there to grab them from you and we get them right into the court reporter's hands to make sure they get entered into the record.

When you registered tonight — and if you didn't register, you may want to do so out at the front — you should have received a packet with a comment form in it. It also has tonight's presentation in it, and that'll be a brief presentation by Ms. Colette Brown from the Department of Energy that'll go about fifteen or twenty minutes at this point. During the presentation, I'm going to ask that you hold your questions to the end of that presentation, please, and we'll take about ten or fifteen minutes of questions and answers on that presentation, and then move into the comment period. Oral and written

comments are given equal consideration by the Department in these matters.

There's some other material at the back table — and I guess it's over on this side — that's available, including an expert panel report forecasting future demand for medical isotopes, the Federal Register Notice of Intent, or NOI, as many people know it, and several NASA brochures on some of the space programs. And that material is available.

Let me just go back over the format of tonight's meeting because some people have asked about it. And it is a little different than maybe what you've seen in the past, but in fact it's a format we've used before, four or five times this past week, as well as we've used here in the past. And as I said, one of the purposes tonight is to get some information from DOE. That'll go very quickly, and then we'll move into Q&A on that; that'll go quickly. We'll take a few questions, and then we'll move into the comment session.

The NOI published — talked about the comment session being a period where individuals have five minutes and representatives of organizations have ten minutes. So when you come to

the microphone, we'll need to know if you're representing yourself or an organization.

go first. I have a list of what looks like seven or eight here. We'll start with Federal officials, move to state, city, county, and we'll go through elected officials first, or representatives of those elected officials who may be bringing a letter or whatever out here this evening.

And then we'll move into the question and answer period — excuse me; comment period. And at the comment period, I will not — as you saw, there's no sign-up sheet at the front, and I will call on people randomly out of the audience — you don't know me; I don't know you — and we'll just go through the list of people, and I think you'll find that it's about the fairest way to do it.

And we have two microphones out here. There's a tradition sometimes in some places to line up at the microphone. Please don't do that. What I plan on doing is, I'll call someone from this side of the room first, and as they come up to the microphone, I'll select someone from this side of the room to be ready to come up to this microphone, and then we'll just keep alternating back and forth

at the microphones. But don't come up early until we call you, and don't stand in line behind someone because there's a chance we'll take a break and you've been standing there for ten or fifteen minutes, and we need to take a break.

We will take a break or two. These meetings have been running fairly lengthy, and there's some people who can get up and move about, but the people at the front don't get that opportunity. So I definitely will get that break time in there at some point, at appropriate times, when it looks like we've got a natural break or whatever.

One of the things that's important to talk about is what this scoping process is about.

And the DOE people -- and after talking to them again about the format and what is really at hand here, is that they're looking for comments directly related to the scope of this PEIS, so please keep that in mind. However, comments -- you may have comments addressing indirectly this issue, or other comments on DOE matters here at Richland, or whatever, and these comments will be directed to the appropriate offices, too.

As I said, we have the court reporter

here taking notes. We may ask you at some point this evening to repeat your name if we missed it, or whatever. It's not mandatory that you do that, but that would be wonderful if you would.

Also up with Colette today is Shane
Johnson, Special Assistant to the Director, Office
of Nuclear Energy, Science and Technology. And he's
responsible for the programmatic development of the
PEIS and has been on the road show this past week,
too. And he'll be up here to answer questions and
answers, and Colette and him will both take those
comments.

We will, basically, during the comment section, just stick with comments. We're not going to open it back up to Q&A at that point, because you'll find that we have a lot of people who want to comment, and we'll not get back into an extended discussion because it sort of messes up the time

frame.

There are other DOE officials here, as you would expect, from Richland and Headquarters staff, and if we need to call upon them, they'll be introduced so you know who they are and what their expert area is, and then we'll get them to help answer questions if needed.

microphones tonight because of the large size of the crowd. If you're going to comment, I will be having my handy-dandy associate here, Chris, who's been doing a great job of timing these, and I will sort of, not rudely, but try to give you the — "It's one minute left" for the five-minute individuals, or "It's one minute left" for the ten-minute organizational speakers, representatives. And then at that I'll give you maybe thirty seconds, and I'll just let you know, and then we'll need to summarize at that point, whether five- or ten-minute pieces.

It's very important that we use the

And again, it's very important that if you do want to summarize and provide your written comments, we'll take those, and you don't need to use all of the five minutes for certain.

But I think it's moved pretty smoothly, I think. The last couple of nights, with similar-sized crowds, though, we were past the published deadline of 9:00 p.m. by, oh, two or three hours, I think, each evening. It's been going to 11:30 or midnight. And that's not East Coast time. It's been here.

And I look forward to working with you. And again, I'm going to run a fairly tight

ship and keep this moving. As I walked out of the room a couple of nights ago, there was a gentleman in the back of the room, and he looked at me — and it was, I think, 12:15 or so as I was walking out, and he looked at me and he said, "Sir, does your mom know you do this for a living?" That had a big impact on me, so I will tell my mom this weekend what I do, I've decided.

Anyway, thanks for coming. I'd like to introduce Colette Brown for a presentation.

Again, hold your questions, and we'll get to that right after this. Thank you.

(Presentation by Ms. Colette Brown was given)

THE FACILITATOR: Thanks for bringing the lights up.

I guess we'll take about ten minutes or so here, take a few questions, and then we can move on.

QUESTION AND ANSWER SESSION

THE FACILITATOR: I'll go start on this side of the room. Are there any questions from this side of the room? We'll start right here with the gentleman right by the microphone.

MR. NORM BUSKE: Thank you. My name

Τ	is Norm Buske. And I - this question concerns what
2	missions are not included and it, in particular,
3	relates to your last comment on not defense
4	missions. My understanding is that basically it's
5	the — the way this works is that the missions are
6	all civilian that it's to be brought up on, if it
7	comes up, if FFTF comes up, but that ten minutes
8	after it would come up, then it could be put into
9	defense production, and unless there was a
10	congressional mandate not to do so. If that is the
11	case, and that was my understanding from your
12	comment also in Seattle — if that is the case, it
13	makes it very difficult for the public to comment
14	on because we're missing, you see, so much of the
15	picture. And what I so my question is, am I
16	correct that, in fact, if DOE gets it up on the
17	civilian mission platform, that it can take defense
18	production missions or, not missions, but
19	clients, and if so, how does the public comment on
20	that so that because, see, it's sort of
21	invisible. Thank you.

THE FACILITATOR: Okay. Thank you.

MS. COLETTE BROWN: I don't think it

would be wise for me to predict, you know, what

might happen in ten years, and you know, whether or

not this country is going to have an important national security mission that would require the use of the facility. But I can tell you that I mean what I say when I say this mission base that we've identified is civilian in nature. Now, should the facility — should a new mission come up that has national security implications that would require the use of the facility, I suspect that that would require a separate NEPA review. And although an EIS might be classified, it would still involve a nonclassified public participation activity, so you would have an opportunity at that point to comment.

THE FACILITATOR: Thank you, Colette.

Move to this side of the room, or -- with any
additional clarifying questions on the presentation,
anybody? Show of hands, anyone who would like to
ask a question?

Yes, sir. Could you come to the microphone, please? Thank you. Get it for the record.

MR. GERRY POLLET: Thank you. Within the scope of any of these alternatives, do you consider contractually expanding your capacity essentially by private contract or contract with the Canadian government, rather than your own

1	infrastructure, within the scope of any of these
2	particular alternatives?
3	MS. COLETTE BROWN: No. The scope of
4	this is involves the expansion of the United
5	States' nuclear facility infrastructure, although,
6	like in the case of plutonium-238, an option is
7	purchasing it from Russia, the material from Russia.
8	But not the expansion of someone else's
9	infrastructure; no.
10	MR. GERRY POLLET: No, I think you
11	misunderstood me. Not expanding their
12	infrastructure, but essentially accomplishing the
13	same thing as you would do with the Russian
14	contract; meet your capacity projection through
15	contracts, whether it's someone - the contract with
16	the guy who bought the Texas Super Collider Super
17	Conductor accelerator parts, or with the Canadian
18	government. Is by contract, meeting your
19	capacity for something other than Pu-238, is that
20	part of any of them?
21	MS. COLETTE BROWN: That has not been
22	considered.
23	MR. GERRY POLLET: Okay.
24	THE FACILITATOR: Okay. Thank you.

Questions from this side of the room? Is there any

additional questions? Yes, sir, right here. 1 for the long walk, but we really do appreciate you getting it on the mike. 3 MR. MARK BECK: Yes. My name is Mark

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The question I have is in - your listing Beck. here - future demands for medical isotopes. projections of 7 to 14 percent increases that are expected for years, and it states that there are possible shortages of these isotopes. calculating the shortages, what assumptions were made about future production, be it from Canada or from other - other sources? Is that just assuming current facilities? Or what are the assumptions under which there are expected to be shortcomings? MS. COLETTE BROWN: Shane, do you

want to help me with that?

MR. SHANE JOHNSON: Yeah. Excuse me; The underlying assumption on the forecast for yes. shortages is based on the existing production capabilities both domestically and internationally.

> MR. MARK BECK: Okay. Thank you.

THE FACILITATOR: Okay, thank you. Additional questions at this time? I don't see any questions at this time. Oops, sorry, I - we'll

have to bring you all the way to the front. Sorry about that.

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This is the last question I'll take, and then we'll move into the comment period.

MR. BILL STOKES: Thank you for bearing with my long walk.

THE FACILITATOR: Okay.

MR. BILL STOKES: My name is Bill One of the items that were identified in Stokes. the PNNL 30-day report and took a look at - oh, thank you - and took a look at the NERAC decision talked about the opportunity to look through the EIS process at the private sector funding and commercialization options. I didn't see that relative to the options that were identified on the set of alternatives as to where you factor those issues in, and I wanted to know where you would take a look at alternative financing processes versus you know, against -- Federal financing options versus private financing options. Thank you.

MR. SHANE JOHNSON: Yes, the PNNL report did include that, but with respect to this NEPA document we are not currently proposing to get into how the implementation of the various alternatives would be handled financially.

THE FACILITATOR: Okay, thank
you. Thanks.

We'll go ahead and move now into the comment period, and I — as I said before we have — we'll take elected officials first, and then move into the public comment period.

Tonight we'll have an opportunity to hear a variety of viewpoints, and please, please extend the courtesies that you'll expect at the mike to the others. As Colette referred to this as the beginning of the process with scoping, with a timetable that will end up bringing them back here next year with hearings. At these public meetings, however, they've been running a little long, as I said, so at some point we will probably take a break or two. I just wanted to point out the two exit doors in the back. And also the restrooms are nearby, pretty much ample locations, and with this crowd, it's good to know that.

If you have a medical condition that would require you to go early in this randomness process, or you have a real matter with the babysitter or a real conflict, if you would let Charlotte know — and Charlotte, stand up, please, and show them who you are — let Charlotte know by

waving over to her or whatever, so we can get your name early to get you out of here for a dialysis, or a sick kid, or whatever. Because we — these go quite a long time, and at four or five hours, you may need to take a break.

This opportunity includes going through a list of elected public officials, and so what I'd like to do is to, either mike that they choose, to start with the elected public officials, and of course we'll start with state congressional and senatorial. And I understand that — I believe — and I've got a lot of different names — Suzanne Heaston from Slade Gorton's office is here from the U.S. Senate.

COMMENT SESSION

STATEMENT ON BEHALF OF SENATOR SLADE GORTON

MS. SUZANNE HEASTON: Thank you. I
have a statement from United States Senator Slade
Gorton.

"Cardiovascular disease is the number one killer in America. Cancer affects one in three people in the United States. Arthritis and other rheumatic conditions affect 43 million Americans — daunting statistics, statistics that are represented by real people and their suffering. Medical isotopes are used in new, cutting-edge technologies

in treating cancer and other diseases without the usual debilitating side effects, and at a lower cost

than traditional treatments. 'Smart bullets' with medical isotopes have achieved up to 95 percent success in treating certain cancers. However, our nation is facing documented shortages of research and treatment quantities of isotopes because we lack adequate production capabilities. We lack enough facilities to produce the variety, quantity, and quality of lifesaving isotopes that are necessary to conduct research and treat our patients. In this scoping meeting for the Nuclear Infrastructure Programmatic Environmental Impact Statement, PEIS, I urge the Department of Energy to consider, first and foremost, the commitment the Federal government is required under Section 31 of the Atomic Energy Act to keep, to supply research and production quantities of isotopes.

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"Isotopes are made and used in various ways, from nuclear waste, as in yttrium-90, which has been found very effective in treating non-Hodgkin's lymphoma; accelerator-produced isotopes, such as fluorine-18, used in diagnostic tests like PET scans; and reactor-produced, such as iridium-192, which is used to help prevent arteries from reclogging after angioplasty. In assessing our nation's needs, all methods of isotope production to

provide a reliable, diverse supply for researchers, and production capabilities for diagnostic and treatment quantities, must be evaluated.

"This report should include a thorough critique of projected waste streams from the operation of facilities utilizing" — "utilized in meeting our needs. Sound science will accurately inform the public of the type and quantity of waste generated. The public will thereby have credible information that relies on proven science, instead of out-of-context pseudoscience that is currently disseminated in scare-tactic forms by activist groups.

"A detailed cost analysis of how to meet our nation's nuclear infrastructure needs should also be addressed in the PEIS. Funding requirements for the construction of new facilities must be compared to resuming operations at the Fast Flux Test Facility. We have already invested millions in a premier facility that is capable of fulfilling a significant share of our future nuclear infrastructure needs. That investment must not be disregarded.

"Finally, any programmatic assessment of our nation's nuclear infrastructure should also

include an evaluation of our educational opportunities for training future scientists.

Creating a safer and cleaner environment will require highly skilled students of nuclear science and engineering. We must have facilities such as test reactors for hands-on learning for young researchers. These future scientists are the very people we will rely upon in the 21st century to meet technological challenges such as nonproliferation, fuels development, and spent nuclear fuels.

"I appreciate the opportunity to provide these additional suggestions for the scope of the PEIS, to complement the reported scope of evaluating steady-state neutron sources for medical and other isotopes, plutonium-238 for NASA long-term needs, and conventional nuclear research and development needs.

"Most importantly, though, through its isotope program, the Department of Energy has an opportunity to greatly improve the quality of life for millions of Americans who suffer from cancer, cardiovascular, and other diseases. I urge the Department of Energy to recognize and embrace its responsibility to provide the quality and quantity of isotopes needed to diagnose and treat our patients."

1	Thank you.
2	THE FACILITATOR: Could you put that
3	- thanks.
4	Is there anyone else representing a
5	U.S. congressman or senator here? Yes. Yes, ma'am.
6	STATEMENT ON BEHALF OF REPRESENTATIVE DOC HASTINGS
7	MS. JOYCE DE FELIZ: I'm Joyce de
8	Feliz, and I'm Congressman Doc Hastings' district
9	director, and I'm here this evening to read a
10	statement on his behalf.
11	THE FACILITATOR: Thank you.
12	MS. JOYCE DE FELIZ: And I'd like to
13	present the original copy of his statement, which he
14	has signed, to you, and I also have additional
15	copies for the media in case they should inquire.
16	Again, I'm reading this statement on
17	behalf of Congressman Doc Hastings.
18	"Thank you for allowing me the
19	opportunity to share my views with you this evening.
20	"Most of us know someone with cancer
21	or have seen a loved one suffer from cancer. Recent
22	developments in the medical isotope field suggest
23	that our ability to combat deadly cancer strains
24	will be revolutionized by these new medical

isotopes. That is why I believe that it is vital for the Programmatic Environmental Impact Statement to consider the benefits provided by the production of medical isotopes at FFTF during the scoping process. Section 31 of the Atomic Energy Act requires the Federal government to maintain research and production quantities of isotopes. The FFTF has the unique ability to produce a steady stream of different medical isotopes simultaneously at one reactor. FFTF offers the added benefit of allowing the government to meet its statutory responsibilities at a low cost to taxpayers.

"The growing research field surrounding medical isotopes has tremendous potential to improve the lives of millions of people worldwide. There have been many highly successful clinical trials in the treatment of several major classes of cancer and other medical problems.

Medical isotopes offer innovative new ways to treat cardiovascular disease, arthritis, and other rheumatic conditions.

"Restarting FFTF would increase the reliability and the diversity of medical isotopes while stabilizing the supply of these promising disease fighting tools. The rapid growth of this

field could support the majority of the costs to operate the reactor. It is vital that the EIS take into account the growth of medical isotope treatment options and the corresponding increase in this market. Further, the EIS should determine the amount of future health care cost that would be avoided by using these isotopes.

"The PEIS should also include the benefits of increasing the Federal program in isotope production not only in medicine but also in the supply of radioisotopes that are essential for biological and agricultural research, food irradiation, and numerous other industrial uses that would benefit the entire nation.

"Because cost is an essential component of the decision of FFTF's future, it is important to consider the cost associated with restarting FFTF in comparison with the cost of constructing a similar reactor or new alternatives — such as accelerators — to conduct FFTF's mission in the future. The United States has spent over \$1 billion on FFTF to make it a premier facility. I am confident that FFTF is capable of fulfilling a majority of our future nuclear infrastructure needs at a lower cost to American taxpayers than any other option.

"Further, the PEIS must include a 1 detailed account of the benefits provided for 2 research and education. We must ensure that this 3 nation maintains the ability for American students to learn firsthand the challenges associated with nuclear reactors. Research is an essential 6 component to ensure further developments in the

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nuclear field.

"I appreciate the opportunity to provide the Department with these recommendations for inclusion in the PEIS. I hope that the EIS provides an authoritative, objective account of all issues surrounding the nuclear infrastructure of the United States and the benefits provided to all Americans through the use of medical isotopes to treat the worlds deadliest and most debilitating diseases."

Thank you.

THE FACILITATOR: Thank you.

Okay. Were there any other state excuse me; Federal-elected officials? If not, we'll move to state-elected officials, governor, representing the governor, or state legislators. think I saw at least a name or two here, state -

Yes, ma'am.

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STATEMENT ON BEHALF OF WASHINGTON STATE REPRESENTATIVE SHIRLEY HANKINS

MS. V.J. MEADOWS: Good evening.

Representative Shirley Hankins deeply regrets that she is unable to attend this meeting. My name is V.J. Meadows, and I will be reading her statement.

"As the widow of a cancer patient, I would like to emphasize to you that medical isotopes for the treatment of cancer must be a number-one item in your review. My family has lost a number of members to cancer. In fact, my cousin is in treatment today for breast cancer. I am asking for your consideration in this matter because I believe adamantly that the Fast Flux Test Facility should be utilized for research and educational purposes. There are thousands and thousands of people who would benefit from the cancer treatments derived from this facility, perhaps your mother or your child. Many countries and many national agencies could use this facility to the betterment of all mankind. We no longer have the luxury of listening to the anti-forces opposing growth and education in the medical field.

"I don't wish to be repetitive with

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1	my comments, but I do believe that in reality we
2	have an opportunity to save a lot of people's lives,
3	and we need to do just that.
4	This process should be on clear and
5	accurate science, not the misinterpretations of a
6	few who gather to demoralize our community."
7	Thank you.
8	THE FACILITATOR: Thank you. Do you
9	have a copy of - thank you.
10	Any other elected public officials
11	representing the state or state legislature?
12	No? We will now move to those in the
13	county and city government. I would — here at
14	Richland, I suppose — Larry, you're the mayor here.
15	Do you want to come up just to start us off on the
16	county officials, since you're the local -
17	MR. LARRY HALER: I don't know if I
18	should have come up here for Pat Hale, but she's
19	also given me a letter, and I'd like to take my time
20	to not only talk about — to read Pat Hale's letter,
21	but - Senator Pat Hale.
22	THE FACILITATOR: Okay.
23	MR. LARRY HALER: And then also talk
24	- my notes, also.
25	THE FACILITATOR: Okay.

	MR.	LARRY	HALER:	Okay?
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THE FACILITATOR: Okay.

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STATEMENT ON BEHALF OF WASHINGTON STATE SENATOR

PATRICIA S. HALE

MR. LARRY HALER: On behalf of Senator Pat Hale. She says here —

"Thank you for the opportunity to comment on the environmental impact statement for the potential restart of the Fast Flux Test Facility. I applaud your efforts to fully and fairly evaluate the FFTF. The FFTF is a valuable resource that should be used to help our mission" or, "to help our nation meet its critical research needs; in particular, the production of medical isotopes. The United States has not been able to meet the demand for isotopes to treat cancer. Cancer kills more than one and a half million Americans each year. Conventional treatments for cancer are time-consuming, have debilitating side effects, and are costly. Medical isotopes will save lives and improve the quality of life for those being treated. The cost for treating people with medical isotopes is estimated to be 50 percent less than traditional costs. The savings of the Medicare/Medicaid system should not be ignored, either.

1	"This EIS process provides the public
2	input on the future of FFTF. I encourage the
3	Department to study all credible and factual
4	information it has gathered."

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And I'll give this to you when I'm — THE FACILITATOR: Yes.

STATEMENT OF LARRY HALER

MAYOR, RICHLAND, WASHINGTON

On behalf of the MR. LARRY HALER: Richland City Council and the citizens of Richland I would like to welcome everybody here this evening. I hope that we do continue to have rational, thoughtful discussion on this. I have chosen for my topic this evening the FFTF restart/deactivation costs. The reason that I've chosen this is that I was asked to come back and testify before the NERAC committee on July 29th of this year on behalf of the FFTF, in which I presented the NERAC committee with Governor Locke's statement on his support of the EIS process and the potential restart of the FFTF for medical isotopes, as well as the state senate and the state house of representatives resolutions, along with a letter from Senator Gorton and from Senator - and from Congressman Hastings.

But at this point I'd like to talk about the FFTF restart and deactivation costs, and I'll read my statement here.

The program scoping plan for the FFTF was issued to the Department of Energy on August 1st, 1999 by Battelle at the Pacific Northwest National Labs. It states that the approximate three and one half year effort to restart the reactor would cost \$229 million if the DOE decides to use the FFTF. Costs would start after the announcement in the Record of Decision and cover system upgrades and activation.

The program scoping plan also compared costs to restart with deactivation if DOE determines that the FFTF is not needed and permanent shutdown is required. The total estimated cost to complete the deactivation is \$199 million spread over approximately six years. Again, costs would start after the announcement in the Record of Decision and cover system deactivation, fuel processing to above-ground storage, and sodium drain.

The FFTF business model was developed using guidelines provided in DOE Order 2110.1A, "Prices of Department Materials and Services," USDOE

1992, and benchmarked against current business models at other DOE reactor sites. Constant 1999 dollars were used to develop the model, and the assumptions for the model were reviewed and agreed to by the DOE Chief Financial Officer's Office. Dr. Howard Kaufold, Director of Executive MBA Program at Wharton Business School, University of Pennsylvania, independently reviewed the full model.

Unplanned delays, for example, legal actions to delay restart, could cause the estimated costs to increase. These delays would postpone the production of greatly needed isotopes and increase the associated costs.

The program scoping plan for the FFTF clearly states the estimated costs. The Hanford Public Interest Network, HPIN, claims that Battelle underestimated the costs of restarting and overestimated the costs of shutting down the FFTF. While the HPIN referenced the document, they took the information out of context by quoting only part of the text with the intent to mislead the public. It should be noted that PNNL issued a statement saying it stands behind its numbers.

And the key points that I'd like to make this evening are:

1	The program scoping plan for the Fast
2	Flux Test Facility was very clear;
3	The FFTF business model was developed
4	using DOE guidelines;
5	The FFTF costs were benchmarked
6	against future current business models and models at
7	the DOE reactor sites;
8	Constant 1999 dollars were used to
9	develop the model, and delays will add to inflated
10	dollars;
11	HPIN took information out of context,
12	and PNNL stands behind its numbers.
13	And I thank you very much for the
14	opportunity to speak this evening.
15	THE FACILITATOR: Thanks.
16	Moving into either city or county
17	officials, I will just look for anyone who would
18	like to come up. I think -
19	Yes, sir. I recognize you from last
20	night. Could we — yeah. Thank you. Go to the
21	mike. Thank you. I'm going to have to send you
22	back there.
23	STATEMENT OF CHARLES KILBURY
24	MAYOR, PASCO, WASHINGTON
25	MR. CHARLES KILBURY: I am Charles

Kilbury, mayor of the City of Pasco, and I have a very short statement.

There are among us those with no great knowledge of science who castigate radioactivity without understanding that we are surrounded by it and suffer no consequences as a result.

I would wager that the same attitude was greeted when we first discovered fire in the long-distant past, until someone became bold enough to try it, and it gave us its warmth and benevolence.

We are, and are now obtaining much of our radioisotopes from foreign sources, which means there can be, and are, delays in receiving them. We have an excellent source in the Fast Flux Test Facility which can provide us with almost the entire spectrum of radioactive substances, including in some cases radioactive atoms which are unobtainable elsewhere and have the property of seeking out and destroying cancer cells. It is well that we consider and take advantage of this fact, for if we deny ourselves the use of these radioactive bullets, we may well have no other source for them.

Thank you for listening.

1	THE FACILITATOR: Thank you. Okay,
2	thank you.
3	Additional county or - yes, sir. Go
4	ahead. You beat me to the punch. Here, I'll take
5	it.
6	STATEMENT OF JAMES R. BEAVER
7	MAYOR, KENNEWICK, WASHINGTON
8	MR. TOM WALKER: Thanks. Charles the
9	Magnificent is a very hard act to follow.
10	(Laughter.)
11	My name is Tom Walker, Kennewick City
12	Councilman. I'm here representing the mayor and the
13	city council of the City of Kennewick. Mr. Beaver
14	was unavailable to attend tonight. I'd like to read
15	his statement.
16	"The City Council of the City of
17	Kennewick supports inclusion of the Fast Flux Test
18	Facility as an alternative for consideration in
19	meeting this Nation's needs to deal with issues of
20	nonproliferation fuels development and testing;
21	isotope production for medical and industrial
22	purposes; nuclear research and development; and
23	plutonium-238 production for space exploration, but
24	to name a few. The FFTF can do all this and more.

It is an existing asset and investment that should

be put to beneficial use for its useful life on behalf of the taxpayers who funded its construction.

"This Council did not make such a recommendation lightly. This reactor is in our community backyard. As a body of elected officials, we must be concerned about community safety above all else. FFTF is safe. It was designed, constructed, maintained, and operated on the basis of modern commercial reactor standards. It is located within a building that meets stringent containment criteria. It has integral safety systems designed to automatically shut down if abnormal conditions are detected.

"FFTF has undergone the same plant design review and final safety analysis report review by the Nuclear Regulatory Commission and Advisory Committee on Reactor Safeguards has been applied to all other commercial reactors. During start-up, a comprehensive series of acceptance tests were performed to confirm the adequacy of the test — of the plant design, including the cooling of the core by natural circulation during an emergency.

"FFTF has the capacity to meet the Department's needs, and it is a proven safe reactor that is paid for. It should be the preferred

alternative for meeting the Department's varied
missions noted above."
Thank you.
THE FACILITATOR: Yes, sir. Thanks.
STATEMENT OF GERALD R. GREENFIELD
MAYOR PRO TEM, RICHLAND, WASHINGTON
MR. GERALD GREENFIELD: I'm Gerry
Greenfield. I'm mayor pro tem from Richland, and I
just want to make a brief supplement to our mayor's
statement.
I read in the paper that in one of
your past hearings, that one person was in
opposition to the FFTF and said he didn't want to
hear any more about sick people. But that's the
reason we want to see the FFTF restarted. My family
has been touched by the medical and emotional
impacts of cancer.
The specialists in cancer all say
many isotopes hold great promise to substantially
improve cancer patients' survival. Few isotopes are
available in the United States. The FFTF would
reverse this situation, and therefore — thereby

We are all concerned with the wastes of isotope production. Although your evaluation

reduce the cost of research and treatment.

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L	should protect the public from the effects of waste,
2	you should also recognize those wastes are
3	incomparable with those weapon-grade production
1	wastes.
5	I encourage you to weigh the merits
5	of the FFTF's benefits against the disadvantages so
7	we can improve our health. Thank you.

THE FACILITATOR: Thank you.

STATEMENT ON BEHALF OF

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THE COMMISSION OF THE PORT OF BENTON

MR. BEN BENNETT: Thank you very I'm the executive much. My name is Ben Bennett. director of the Port of Benton, and I'm here to read a letter from the Commission of the Port of Benton as signed by Hal Lindberg.

"The Port of Benton supports the restart of the FFTF for the production of radioisotopes to help treat cancer patients.

"The Port's district includes all the Department of Energy's Hanford reservation located in Benton County, and many of our properties border on The Port district was formed in 1958, along with the City of Richland, to be an economic development agent related to the eventual downsizing

of the site, a role that the Port has been very

successful at over the past forty-one years. Over that four decades, the Port, city, and county taxpayers have continued to back efforts to find other uses for former DOE facilities and properties by bringing in private companies and identifying new uses. We believe that the FFTF is one of the most valuable and promising yet offered to this community.

"Financially, redirecting the use of the Fast Flux Test Facility from its original mission of developing radioisotopes for weapons to a humanitarian purpose for protecting people from various types of cancer is an obvious way to recapture much of the very large amount of monies spent in bringing the facility to its current efficiency level. This mission is the most economic and humanitarian use that can be made of this facility.

"Nuclear energy, like all natural forces, need to be thoroughly understood, and then directed toward uses that benefit mankind. Nuclear energy is not all bad. Indeed, without it there would be no life on this planet. Our life-giving sun, upon which we all depend, is a nuclear reactor.

"Over the eons that life has evolved

1	here on this planet as a result of the solar
2	radiation from the sun, mankind has made use of
3	almost all the natural energy sources found here.
4	Again, the life-producing radiation from our sun has
5	provided us the opportunity to discover ourselves
6	and the other forces of the natural world.
7	"And over the past six decades, the
8	people of the earth have learned how to control and
9	use nuclear power, and found that our natural
10	supplies here on the small planet can be put to use
11	for the benefit of all people when they are properly
12	managed.
13	"The new mission for the FFTF is an
14	unique example of how far we have come in our
15	education of nuclear forces and energy. Let's not
16	now destroy a unique chance we have to provide a
17	very valuable means of bettering life for all of us
18	for this new purpose."
19	And it's signed "Hal Lindberg,
20	Commissioner of the Port of Benton."
21	THE FACILITATOR: Thank you.
22	Yes. Oh, yes, sir. Go ahead.
23	STATEMENT ON BEHALF OF JERRY A. PELTIER

MAYOR, WEST RICHLAND, WASHINGTON

MR. STAN STAVE: My name is Stan

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Stave, and I'm the city administrator for the City of West Richland. A letter has already been provided here. Let me read a copy of it, please.

"The Department of Energy's decision to restart the Fast Flux Test Facility would allow active U.S. participation in the technologies of proliferation-resistant fuels research that would improve the likelihood that other existing and future nuclear-capable nations adopt a nonproliferation fuel cycle.

"The U.S. policy on plutonium recycle has not yet been fully adopted by other nuclear powers. These nations are interested in supporting nonproliferation, but at this time do not have alternatives to assure their energy future. If effective nonproliferation fuel cycles were developed and available, these nations would likely adopt such alternatives. If the U.S. does not take a leadership role in the development of alternative fuel cycles, it is unlikely that it would occur. This would mean that the current plutonium recycle program would continue, thereby increasing the risk of diversion of plutonium and other weapons-usable materials to terrorist nations or organizations.

"Give the Fast Flux Test Facility a

1	new job: protecting the country and saving lives."
2	This is by Jerry Peltier, Mayor, City
3	of West Richland.
4	THE FACILITATOR: Thank you.
5	Any other elected public officials?
6	Yes, ma'am.
7	STATEMENT ON BEHALF OF THE
8	BOARD OF BENTON COUNTY COMMISSIONERS
9	MS. DONNA NOSKI: I'm Donna Noski,
10	director of administrative services for Benton
11	County, and I'm reading into the record a letter by
12	the Board of Benton County Commissioners and signed
13	by Chairman Claude Oliver.
14	"We request that you thoroughly
15	assess the costs versus benefits of therapeutic
16	nuclear medicine in the near term and 20 to 30 years
17	hence, with special emphasis on the unique needs of
18	an aging population.
19	"As part of this quantified
20	assessment, we urge you to carefully assess the
21	effectiveness of therapeutic nuclear medicine
22	compared to other favored alternatives. This
23	comparison should include short- and long-term costs
24	and benefits, both direct and indirect.

"We also believe that a fresh look at

1	the United States' reliable production capability of
2	medical isotopes is in order. The blue ribbon team
3	forecast substantial increases in isotope demand.
4	In particular, your EIS scope should provide for
5	careful analyses and comparisons relative to the
6	needs of the medical isotope researcher and clinical
7	trial team versus the needs of a fast-growing
8	medical isotope industry requiring large quantities
9	of FDA-approved medical isotopes.
10	"In all cases, the downside risk to
11	human life, suffering, and cost needs to be
12	evaluated assuming we continue with inadequate
13	supplies of medical isotopes in the face of rapidly
14	increasing demand.
15	"Thank you for this opportunity to
16	comment. Claude L. Oliver, Chairman."
17	Also attached is an FFTF EIS scoping
18	statement. Thank you.
19	THE FACILITATOR: Any other elected
20	public officials?
21	Yes, sir.
22	STATEMENT OF CITY COUNCIL MEMBER KEN DOBBIN
23	WEST RICHLAND, WA
24	MR. KEN DOBBIN: Yes. Good evening.

I'm Councilman Ken Dobbin, West Richland.

If the FFTF doesn't restart, how many lives will be lost? That's the overriding question of those fighting for their lives, fighting for the lives of their parents, their children, their neighbors, fighting against diseases such as cancer and heart disease. It's most important to them that this environmental impact process look at the impact of that. And included in that is the impact of delays if new construction is chosen. We believe that's a NEPA requirement, and it's certainly a requirement of us local governments here in the mid-Columbia region.

We must also sort out the technically incorrect information and testimony. Ever since the FFTF had a real chance at restart, opponents have been making false statements and inconsistent logic — and they use inconsistent logic. They spin fiction stories to scare the public into buying their stories. This fiction belongs in entertainment, not medicine, science, or engineering. So far I have not heard one legitimate reason why we shouldn't restart.

I testified in Seattle and Portland to refute that false testimony. I want to be sure that when society realizes that there is actual loss

of life here, that there's no elected official that can say, "I didn't know. I didn't know that there's a shortage of medical isotopes." I testified that people, patients in Seattle, have been denied treatment with palladium-103 and iodine-125.

Clinical trials have been stopped using copper-67 because of lack of supply.

I don't want them to say, "I didn't know that the FFTF was safe." Based on the physics, automatic shut-down systems, and its containment dome protects the public from even the worst case hypothetical accident.

I don't want them to say, "I didn't know that the FFTF produces less waste than even the submarines operating in Puget Sound." Every year we see those submarines being transported and buried on the Hanford Project, and their fuel must be disposed of in the same way FFTF's is. And take that huge Trojan reactor vessel sent here by the State of Oregon. The FFTF can operate for thirty-five years and not produce that amount of low-level waste.

When I spoke of this hypocrisy in Portland, a man in the audience right beside me said, "Well, we'll take it back."

(Laughter.)

Indeed. Indeed they should. Indeed they should, before any Oregonian says that we cannot produce medical isotopes in FFTF because we produce a little waste. And before Seattle joins Oregon in this deed, let them bury the submarine compartments in King County, not Benton County.

And the most widely spread falsehood is that we will steal cleanup money. But what will really happen is, if the Secretary decides not to run the FFTF, not to choose it, then it will go from the nuclear energy budget into cleanup budget. And guess what? I think our opponents are right on one case. It's a zero-sum game. So where is the money going to come from? Out of the waste tank cleanup. So what do we get? We get less cleanup money, and cancer patients die. That's a tragedy.

Opponents can't seem to separate FFTF from the Hanford defense cleanup. They use that to obfuscate and hoodwink the public. I predict that the public will see through that and their trickery. The FFTF should be separated from the rest of the Hanford missions in assessing this PEIS.

The DOE should consider the following complementary missions: plutonium-238 for space batteries; space reactor development; safety systems

research; basic science, fusion, and materials
research. It should include transmutation of waste,
proliferation-resistant fuels research and
development, and computer chip hardening. From my
twenty-five years' experience as a nuclear engineer,
I know these missions are complementary in a
versatile FFTF.

And finally, I want to state that DOE has only two operating reactors that must do all of the missions that the public expects it to do. I believe that the FFTF is the best choice among the alternatives to perform many of these missions without delay and associated financial and human costs of waiting for new construction. Let's all support the restart of the FFTF.

Thank you.

THE FACILITATOR: Thank you.

Any other elected officials?

Yes, sir.

STATEMENT ON BEHALF OF THE PORT OF KENNEWICK

MR. NORM ENGLEHART: My name is Norm Englehart. I'm a commissioner at the Port of Kennewick speaking on behalf of the Port of Kennewick this evening.

In a Port of Kennewick special

meeting held November 26th, 1996 in which there was only one item on the agenda, the commissioners voted unanimously for a resolution supporting the Fast Flux Test Facility. My purpose here this evening, almost three years later, is to reiterate for the record the Port of Kennewick Commission's continued support for FFTF and its restart. Thank you.

me.

THE FACILITATOR: Thank you.

Any other elected public officials at this point? That's one of the other reasons I like the West compared to where I live in the Midwest.

No elected official took their allotted time available to them.

(Laughter and applause.)

That won't happen in my state, trust

Thanks a lot. Appreciate the comments. We're going to keep moving right along, and as I mentioned before, the comment period now will run as long as we need to get everybody satisfied that their comments were heard. And I will do that by a show of hands. Let me just reemphasize that there's a stipulation in the NOI that says five minutes to individuals and ten minutes to organizations. Chris and I will also

remind you of that at some point during that talk. We need to have you come to the microphones, and please let's keep this on the wonderful courteous and polite level we have so far this evening.

As we said, the last couple of days we've been out on the road, and people have been staying till 1:00 in the morning or later. And it's been quite a remarkable experience. And occasionally I make a mistake and not call on someone who asked me — said they had to get on a bus, or whatever, so I will — before I do the first show of hands, I know there's a lady here that I missed three or four times, who finally ended up having to walk out on me a couple of nights ago at a meeting. So I see her here this evening.

I think that's you, and could you go ahead and go to this mike? We'll start with you because that's — either one — 'cause I overlooked you and that was not right, and —

STATEMENT OF LAUREL PIIPPO

MS. LAUREL PIIPPO: How could he overlook me in this outfit?

(Laughter.)

I was at the hearing in Portland on Tuesday evening, and we did have to leave. Contrary

to what one of the speakers said, I wasn't a

three-hour immigrant who came crashing in to try to

promote my point of view. It involves thirteen

hours. And I want to welcome the people from Hood

River, and Portland, and Spokane, and any place in

Oregon, any place in the Pacific Northwest, whose

major concern is that horrible mess created

fifty-five years ago, or whenever, should be cleaned

up. It definitely has to be cleaned up. And

starting — or, restarting FFTF should not and will

not interfere with the cleanup mission.

I moved here in 1951, and our family now includes thirteen people. I'm the only one who has cancer. If one in three people is going to have cancer, I think I've taken the hit for the first three rows.

I want to tell you about my
experience in treatment with cancer because when I
read about medical isotopes and smart bullets, and
people who can be treated with non-Hodgkin's
lymphoma and other exotic kinds of cancer, I am very
interested in having a kinder, gentler treatment
than what I have been through. As you see, it says,
"Stop slash," meaning repeated surgeries, cut off a
chunk of your anatomy —

THE FACILITATOR: We need to get you to the microphone.

MS. LAUREL PIIPPO: Okay.

THE FACILITATOR: Yeah. Sorry.

MS. LAUREL PIIPPO: Well, you can

just read my shirt.

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Oh, you mean you can walk around with it? How wonderful.

She's taking chemotherapy. Look. See the hair come out? She's taking chemotherapy. I just talked to her this afternoon and learned that she has non-Hodgkin's lymphoma, a lump in the mouth, so she's taking chemotherapy. And she hasn't had the slash, as I have, for breast cancer, which then recurred. She will go into the burn. That's the good old-fashioned radiation treatment which burns you, and turns you red, and you blister. And then two years later, when you start cracking ribs, the doctor says, "Oh, radiation weakens your rib." does chemotherapy. Then your arm will swell up like a watermelon and you'll wonder what the hell. And you'll find out, oh, that's lymphedema. because they removed your lymph glands.

And radiation is not a little smart bullet. Radiation is buckshot. It hits the whole

side of your body, ribs, and everything, and arm, and you swell up, and you have to wear a fashion statement. \$201 for this special custom-made deal.

So after the first breast cancer, then a year later — I was totally pissed off — I got lung cancer. I mean, I paid my dues. And so a hunk of the lung was removed by surgery. More slashing. Wouldn't it be nice to have a smart bullet? You know, good old FFTF.

But I went to Canada. Three times I flew to Ottawa to get vaccinations to prevent a recurrence of lung cancer. This was in 1991. And people say, "Well, did it work?" Well, this is 1999. They think it works if you're still alive five years later.

So then after that, the breast cancer recurred. More slash, more surgery. And then they decided burn, which was very good because chemotherapy is as close to being in hell as I ever want to be. And after having that chemotherapy, and having the breast cancer recur, I thought if they're going to do chemotherapy, just shove me in the grave. I am not going to go through it.

So it does astonish me when someone says, "We don't want to hear about your sick people.

1	FFTF kills cleanup." It doesn't. We have to clean
2	that up. Thank God you're highly vocal and
3	opinionated, and you're going to raise the devil
4	with Congress. Clean it up, clean it up, clean it
5	up. But please remember, there are people who can
6	be treated with medical isotopes.
7	Marge, I want you to talk to Bob
8	Schenter and find out if medical isotopes will apply
9	to your condition. Excuse me for mentioning it in
LO	public, but we haven't had a chance to talk.
L1	MS. MARJORIE MARIS PETERSON: Well, I
L2	was going to be Exhibit A anyway.
L3	MS. LAUREL PIIPPO: Well, let's talk.
L 4	THE FACILITATOR: Fifteen seconds.
L5	MS. LAUREL PIIPPO: Thanks.
L6	THE FACILITATOR: Thank you.
L7	MS. MARJORIE MARIS PETERSON: Can I
L8	be next? 'Cause I'm the one she's talking about.
L9	THE FACILITATOR: Yeah, you can go
20	ahead. I want to go over the other side of the room
21	after this. Okay? So that's —
22	MS. MARJORIE MARIS PETERSON: Okay.
23	I'll try to make it short.
24	THE FACILITATOR: Okay, go ahead.
25	MS. MARJORIE MARIS PETERSON: Okay. I

1	THE FACILITATOR: Let's keep it
2	there. There. You got it?
3	MS. MARJORIE MARIS PETERSON: Okay.
4	THE FACILITATOR: Thanks.
5	MS. MARJORIE MARIS PETERSON: I seem
б	to be Exhibit A here tonight, but I do have
7	non-Hodgkin's lymphoma, and I am having
8	chemotherapy. I've had only one chemotherapy
9	treatment. I have several more ahead, and then
10	radiation therapy. And as she's already
11	demonstrated, my hair comes out very easily, so next
12	week I'll be wearing a wig. But it's very good
13	looking. I've already bought it.
14	I came to Hanford to work on the
15	Manhattan Project in 1943. Didn't have a clue what
16	we were doing. And this was an "H" of a place to
17	work, but we stayed here, and we built something
18	because we had confidence in our scientists and
19	engineers and those that knew what we were doing.
20	And it did save my husband's life because he was in
21	the Navy when the bomb fell.
22	My husband's an engineer. He worked
23	on the project for thirty-five years. He climbed
24	all over reactors, he designed parts of the

reactors, and he still doesn't glow in the dark.

Anyway, you know I'm on chemo, and I'm going to have radiation. I just think we need to save this thing that works. Why do we have a facility we've spent millions on to build, to tear it down when there's still a good use for it, a healthy use for it? It doesn't make sense to me to build a beautiful castle, but because we aren't living in it, we'll tear it down. Or maybe it doesn't have good air conditioning or something. Why don't we keep FFTF?

And I've already given you my visual demonstration, so I'll sit down, but let's keep FFTF.

We'll come to this side of the room.

And again, a show of hands of who would like to

comment. I'll start at the back this time because I

didn't do that. I got you for the questions

earlier, so I feel a little better about that.

The gentleman here in the blue shirt.

THE FACILITATOR: Okay, thank you.

Okay. And as you come up here — the people on this side of the room, who wants to speak from stage — my stage — whatever side this is.

Just one of you? Yeah. Sir? Yeah. After that.

STATEMENT OF JOHN BOLAND

MR. JOHN BOLAND: My statement does not have anything to do right now with the scoping, but I do have to make a statement that might have something to do with the procedures.

 $\label{eq:interpolation} \mbox{I} - \mbox{may I turn around and address}$ the group, if I can?

 $\mbox{ Down in Portland after I had made my} \\ \mbox{statement} - \mbox{I'm being attacked by a microphone.}$

Down in Portland after I had made my statement I was approached outside by a couple of different people. One was a lady that wanted to talk to me about the Trojan reactor, the vessel.

And I made some statements about nuclear energy, and she suddenly — I mean, she was a nice-dressed lady, very articulate, and suddenly she just stepped back and she looked at me, and she said, "That's bull-S."

And I said, "Oh, now wait a minute. Take me to task. Please make me prove these kind of things."

I was trying to get her to establish a dialog with those of us up in the Tri-Cities. As she walked away, she said, "That's Bull-S."

And for the last couple of days since the Portland hearing, I was thinking there's got to

be some better way of getting a dialog between science and emotion, if we can eliminate the emotion. So I put this statement together this afternoon.

For the better — I call it a plea for peace. And by the way, there are copies of these that I've left around out on some of the tables.

For the better part of 20 years, I've attended and participated in many hearings such as this on the FFTF. Over that time I have observed the decline in civility and information transfer, and the rise of invective and extreme animosity of many of those testifying. It appears that now there are clear lines drawn with far too much separation between the sides, Western Washington vs. Eastern, environmentalists vs. the Tri-Cities, anti-nukes vs. pro-nukes, etc. ad-nauseam. Isn't it way past time for a change?

We need to realize that we're all in this together. God forbid there occur a major adverse event at Hanford. Oregon and Southeast Washington may be on the banks of the Columbia River, and Seattle may be affected by some perverse prevailing wind. Though that is someone else's back

yard, it's the Tri-Cities front yards and living Those who view themselves as opposed to most activities in the Tri-Cities should consider Tri-Citians as allies in the battle to clean up Hanford in the shortest possible time. Tri-Citians are the first line of defense for the rest of the Pacific Northwest. No one will scream louder or knock over more tables to get attention than the Tri-Citians who are keeping a much closer eye on Hanford that anyone else. The great majority of Tri-City residents believe our environment is as safe or safer than Seattle or Portland. fish, and swim in the Columbia River. We breathe the air, drink the water, and a great number of us work at Hanford. We value our children, our elderly, and ourselves no less than anyone living outside our area.

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In attending many hearings, it seems the Tri-Cities is being blamed for the radioactive legacy of World War II and the cold war at Hanford, which is patently unfair. Sadly, there are instances of companies and industries not willing to locate here due to the misperception, fomented in great part by the media in the northwest, that it is not safe to live here. The sooner Hanford is

cleaned up, the sooner those misperceptions will disappear. Additionally, dissatisfaction with DOE is no reason to be unfair to the hundreds of thousands of medical patients whose lives could be saved, and extreme pain mitigated by the use of nuclear medicine for cure and diagnostics of cancer, osteoporosis, AIDS, and many other maladies.

Without prejudice, we must investigate the possibility of using FFTF, or any other reasonable supplier, for the production of isotopes. Let's be sure FFTF can be operated safely with only a tiny, easily handled waste stream, and with no effect on Hanford cleanup.

At a time when the U.S. seems to be awash in budget surplus revenue, let's join together to pressure Congress and the Administration to increase the Hanford cleanup budget. Please let's set aside preconceived perceptions and emotions. We really can become a team to make good things happen instead of spending most of our time, energy, and emotions trying to destroy "the other side."

Let's start a real dialog. We can set up discussion groups, debates, references to Web sites or periodicals, or supply any and all information anyone desires. Let's make it, "Your

1	place or mine," not no place at all.
2	And I have left some of these around
3	the outside. It's got -
4	THE FACILITATOR: Thirty seconds.
5	MR. JOHN BOLAND: - e-mail, and fax
6	numbers, and phone numbers for me, if you will
7	contact me. And I will certainly put you in touch
8	with a lot of folks here who will share lots and
9	lots of information, either here, or wherever you
10	are.
11	THE FACILITATOR: Okay. Thank you.
12	STATEMENT OF MARLENE OLIVER
13	NATIONAL ASSOCIATION OF CANCER PATIENTS
14	MS. MARLENE OLIVER: My name is
15	Marlene Oliver. I'm here tonight representing the
16	National Association of Cancer Patients.
17	I just wanted to say it's very
18	gratifying that people in this community, and
19	including elected officials, recognize the benefit
20	of nuclear medicine and how it can help cancer and
21	other patients.
22	Three out of four families in this
23	country will be affected by cancer. The information
24	you're about to hear tonight comes from the Centers

for Disease Control, the National Institutes of

Health, the National Cancer Institute, Medicare, the Health Care Finance Administration, and studies that have been reviewed and published in medical journals.

I said that three out of four families will be affected by cancer. Nearly one out of two males will develop cancer. Nearly one out of three females will develop cancer. These are real numbers, and the numbers are increasing every year as the baby boom ages. How can we stop this? We need to make research, we need to make isotopes available to these patients who are suffering.

I would like to address the lady with non-Hodgkin's lymphoma. Non-Hodgkin's lymphoma is a fatal disease. It claimed King Hussein of Jordan and Jacqueline Kennedy Onassis. There are at least two people in this room who suffer from non-Hodgkin's lymphoma this evening. 60,000 patients a year develop this disease, and with a study I read on medical isotopes, smart bullets can cause 100 percent of these cancers to shrink. It can cause 71 percent of these cancers to disappear with a single outpatient treatment, and without the side effects that Laurel talked about.

The main complaint of patients who

undergo studies with medical isotopes in the few

treatments that are available to the general public

-- because doctors have to write down every

complication - is that it's boring. Wouldn't it

have been nice for this lady in the red shirt,

Laurel, to say, "My treatment for cancer was boring,

and it only took a single outpatient treatment, and

then it was gone"? That's what we want to hear. We

want cancer patients to be diagnosed and cured

during their first round of treatments, and this can

happen.

This lady had several surgeries. 60 percent of cancer patients have surgery. Another 60 percent have a second surgery. Why is that? Well, obviously because the doctor didn't get all the cancer the first time. What doctors do in surgery is, they stand there and they look at the cancer, and they remove what they can see.

I'm a consultant for new medical technology, and have been for the last twenty years. I'm one of the ones who tells doctors what they don't know about, and I guarantee you that over 90 percent of the doctors in this country have no idea what medical isotopes are used for, either for diagnosis or for treatment. These tiny pockets of

cancer that are left behind are what causes problems down the road.

How are we going to pay for all this? Everybody goes, "It's going to cost so much money to operate FFTF. It's already cost so much money."

Well, let me tell you, there is a law on the books called the 1997 Balanced Budget Act. It asks government departments to save each other money. I would love to see a headline in the newspaper that says, "DOE Saves Medicare." Let's give DOE some good press. Let's give them the opportunity to start FFTF.

And I'd also like to mention that cancer patients like to be treated where they live. They don't want to have to travel all over the country because some of these isotopes are very short-lived. I would ask the DOE in its scoping to consider building many FFTFs dedicated to medical isotope production first, and to other missions as need be, as outline in the scope of the EIS. If there is an isotope with a half-life of two hours, how are you going to get it to New York? It ain't gonna happen.

How are we going to pay for this? By eliminating just half of second surgeries by

isotopes, Medicare would save a minimum of one billion dollars — that's with a B. It costs, in 1993, an average of \$15,000 to care for a dying cancer patient. \$15,000. By using medical isotopes to help target these patients who have no further reason to hope to live other than with medical isotopes, Medicare, again, would save a minimum of one billion dollars a year just for treating bone cancer patients alone.

By making isotopes that are not available right now — they're on back order — to patients with prostate cancer, just 5 percent because prostate cancer seeds work just as well as surgery, and with a new design on the horizon, prostate cancer seeds will work better than surgery. They should. This would save another \$800 million.

What about suffering? We talked about breast cancer, we talked about lung cancer, we talked about non-Hodgkin's lymphoma. For prostate cancer patients who have surgery, half become either impotent or incontinent, or both. That is generally accepted in the medical literature.

A patient a year and a half ago opted

for prostate seeds implanted into his prostate to attack his cancer -

(Facilitator adjusting microphone.)

That's okay. If you gotta do it, you gotta do it.

And he told his wife he still wanted to be able to make love to her, and I quote, "I don't want to wear a diaper the rest of my life."

Another patient, George, had his prostate surgery in 1992 before this treatment became available to the general public. He's been wearing a diaper every since.

Gerry, another prostate cancer patient, was more recently diagnosed. There is a back order of palladium-103 and iodine-125 to fill these seeds, and he doesn't know what to do. He wants to have the seeds. Gerry, we hope, will not be the one out of two men who develop this complication.

I ask all of you in this room to please write to the White House, who asks for what should be put in the budget. Write to the DOE. Ask your — both your senators, ask your representative. We need to make this a national effort. Letters need to come in from all over the country. They do have an impact. The money that FFTF and other

1	facilities like it could save Medicare is in the
2	tens of billions of dollars, not just for cancer,
3	but for other diseases.
4	Thank you very much.
5	THE FACILITATOR: In my usual
6	pointing problems, I pointed to two people at the
7	same time. So we'll go here, and then the gentleman
8	here in the maroon shirt on the corner. Yeah.
9	After this.
10	STATEMENT OF GERRY POLLET
11	HEART OF AMERICA NORTHWEST
12	MR. GERRY POLLET: How many people
13	here for that portion of the medical isotope
14	demand that cannot be met by the private sector, how
15	many people here believe that we should use the
16	least cost, lowest cost facility to meet that
17	demand? Show of hands.
18	AUDIENCE: [Simultaneous comments.]
19	MR. GERRY POLLET: Is it greed?
20	THE FACILITATOR: No, we don't -
21	MR. GERRY POLLET: Is it greed?
22	That's what a lot of people are
23	wondering because there are alternatives to
24	producing medical isotopes.
25	Oh, I'm sorry; I'm representing Heart

of American Northwest. Gerry Pollet.

THE FACILITATOR: Thank you.

MR. GERRY POLLET: We're going to

hear tonight -- it may be 10:00

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o'clock, it may be midnight by the time other people

get to speak, but we're going to hear about

7 lower cost alternatives such as high neutron flux

linear accelerator, lower cost, greater range of

isotopes, other alternatives including the private

sector, Canada. And I dare say, to the rest of the

region, a lot of people are saying, "Is it greed

that people say it's FFTF or nothing?" Is it greed?

13 Is it self-interest? And think about that.

Now, lowest cost. Battelle produced a report that said it would cost only \$230 million to restart FFTF, and \$190 million to shut it down. That \$190 million ironically included \$40 million a year for two years of standby because the Department of Energy, Battelle said, would not have the money to simply invest \$19 million extra in shutdown costs. And so it costs 190 to shut down if you can't find an extra 19 million for shutdown in the next couple of years. But it only costs \$230 million to restart, and they got that figure by leaving out the standby costs for four to six years

of standby and basic surveillance and maintenance, while moving towards restart.

In April of this year, Battelle produced for the Department of Energy what became the approved budget baseline for the restart of FFTF. It's pretty amazing because the approved budget baseline for restart for the same exact missions is \$145 million more than the report to the Secretary claimed.

Now, this region had a commitment from the Department of Energy for what I call cancer prevention. That's what cleanup is. It's disaster and cancer prevention. The Department of Energy in 1995 said "When FFTF is shut down, we commit that the funds saved" — at that time, \$32 million a year — "would be used towards meeting the Hanford cleanup compliance gap." This region expects that to be lived up to. We need that money, and we need it desperately for cleanup.

The Department of Energy moved \$32 million a year, or Congress moved it at their request, out of the environmental management cleanup budget, permanently reducing the Hanford cleanup budget baseline, and moved it into the nuclear energy budget to pay for the standby costs of FFTF

for FY99. If you don't believe me, I do have the documents — some of the documentation with me.

Why do we need that \$32 million a year? Next year we, all of us, and our children, and our grandchildren, all of us together, face a \$232 million compliance gap at this site. \$232 million. That is an incredible compliance gap. The Department of Energy has a plan called the Accelerating Cleanup -- I like to call it Decelerating Cleanup -- and it calls for level funding Hanford cleanup at the same level it is at right now through the year 2006. Not even an increase for inflation, folks. You know what that means? Every year you get less work done, 'cause inflation happens.

And here's what the Department of
Energy, April 15th this year, told — what RL told
headquarters this meant. "Termination of all
environmental restoration activities in the 100— and
300—Areas along the Columbia River. Only partial
support of plutonium stabilization. Continuation of
significant threat to the nearby Columbia River and
Richland city limits during a fire or seismic
release scenario." That ought to worry you. We're
talking about facilities in the 300—Area, some of
which are proposed for some of the ancillary support

work, where, in the event of a fire or earthquake, the expected dose to a member of the public who is allowed in that area now is 90 rem. I'm not going to start going into what rems are. Many of you understand that. That's DOE's risk data sheet. 90 rem.

So we need this money. \$32 million a year pays for three-quarters of the actual work along the Columbia River. It can clean up a significant chunk of the 300-Area and reduce risk to all of us. We need that money. We need that commitment lived up to.

Adding new waste to noncompliant leaking facilities is not in anyone's self interest. FFTF itself doesn't produce a lot of waste except for the spent fuel, which is in a form and has a plutonium content that is not acceptable at Yucca Mountain. And that means your great grandchildren will probably be worrying about how to guard it here on site. Will it ever leave the parking lot behind FFTF? That's a good question that needs to be considered here.

As the Hanford Advisory Board said,

DOE in its EIS and related documents should factor

in restrictions on new wastes going to facilities

that are noncompliant or have potential uninvestigated releases. The impact of additional wastes on the inadequate budget of the site must also be factored into the decision. This was stated in regard to the pending decision to ship more waste here, but it applies equally to generating more waste here.

We are talking about generating large quantities of waste from the missions. This is from one set of proposed missions. DOE's Web site and fact sheets disclose, for transuranic waste, not at all. Mixed transuranic waste — that's hazardous mixed with transuranic — not at all. One proposal, a major part of the mission, as you can see, creates a lot of waste. The middle column is what the site generates annually now, baseline. In other words, two-thirds of the amount of low-level waste. A great deal of transuranic waste at a time when this site cannot afford to dig up the buried and leaking transuranic waste containers in our soil.

The total cost -- well, wait a minute. Liquid high-level nuclear waste from plutonium processing. If you make plutonium-238 here, you use the aqueous processing -

THE FACILITATOR: One minute.

1	MR. GERRY POLLET: — and you will
2	have additional wastes added to the high-level
3	nuclear waste tanks. Under DOE's current plan, only
4	10 percent of Hanford's liquid high-level nuclear
5	wastes will be removed from those tanks by the year
6	2018; 10 percent by 2018, current costs, \$6.9
7	billion. And we will add more waste into those
8	leaking explosive tanks, tanks for which, when it
9	comes to double-shell tanks, we know that we've run
LO	out of additional capacity in the next several years
L1	for double-shell tanks. Are we going to add more?
L2	Doesn't make sense. What everyone learned in
L3	kindergarten applies here. Clean up your mess
L 4	before you make new one. It's simple. And that's
L5	what the rest of the people in this region expect.
L6	The tank wastes threaten the Columbia
L7	River. They threaten human health and the
L8	environments. They threaten all of us.
L9	THE FACILITATOR: Ten minutes.
20	MR. GERRY POLLET: Ten minutes?
21	THE FACILITATOR: Yeah.
22	MR. GERRY POLLET: I will wrap up,
23	then, and just say if you want the region to unite
24	for the main mission of Hanford cleanup funding,

you've got to work and make sure that we're not

1	making more. You've got to expect that the region
2	expects that we focus on cleanup if you want us all
3	to work for the dollars. Right now, more energy is
4	being expended by some senators and congressmen
5	seeking \$12 million more for FFTF than was expended
б	to increase your cleanup budget.
7	THE FACILITATOR: Okay.
8	MR. GERRY POLLET: And that's sad.
9	THE FACILITATOR: Thanks. Thank you.
10	STATEMENT OF GEORGE JACOBSON
11	MR. GEORGE JACOBSON: My name is
12	George Jacobson. I guess I thought this was about
13	three specific missions for FFTF, and not cleanup.
14	I think that was the subject of another hearing.
15	THE FACILITATOR: Okay. Are you
16	representing yourself, sir?
17	MR. GEORGE JACOBSON: Yes, I'm
18	representing myself.
19	THE FACILITATOR: Okay. Thanks.
20	MR. GEORGE JACOBSON: Semiretired,
21	whatever that means. I think it means I work for my
22	wife.
23	As a mechanical engineer, I really
24	believe all three missions are extremely worthy, but
25	I'm only going to speak about isotopes because

that's what I know the most about.

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I have three points that I'd like to make. First of all, a plea that you please, please, look into real data. I really don't think that two or three or a handful of doctors showing up in Seattle really represent the hundreds, the thousands that are out there that can't get materials to treat their patients, including researchers in universities, and other laboratories. Please look at the real data. Those of us that are involved in the isotope business, that have an interest -Idon't work in it; I just have a great interest in it -- we are not afraid to have you look at the raw data, to look at the real facts. The only thing we can't do is bring you the patients that didn't get the treatment. And I think that's what that picture is about right there.

The second point I'd like to make is, in evaluating the financial considerations — and I know Mrs. Oliver made this comment already — please look at the big picture. I understand that your position is to deal with the DOE budget, but there is a far greater impact. My understanding is, bone marrow transplant is around \$250,000. One of these isotope treatments can be anywhere from 4— to 8— to

12-, perhaps 20,000. Even if I'm off by a factor of two, the potential cost savings to the Medicare system is phenomenal. So 15, 20, or \$30 million for operating FFTF — in the big picture, this is about people, and not about dollars. Those dollars are small when you look at the whole Medicare system.

The other point I'd like to make is,
I firmly believe isotopes are needed. A few people
talked about getting them from other countries like
we do now, but a PET scan, for instance, the
half-life of the isotope that's used for that is
only a few hours. You cannot fly it in from Canada,
Eastern Canada, or anywhere else. It has to be
produced close to the instrument. We can't expand
the breadth of the materials that we need, the
research that's being done. There are other
possibilities for arthritis and AIDS and other
things that have been mentioned.

I believe FFTF is the safest, most regulated reactor that that job can be done in. I want to see it stay in this country. I want to see the research done in this country. The legacy of Hanford — some things were done — weren't done right, but we're a free country, we're not living under Hitler or communism because of it. FFTF was

1	designed to the latest regulations. Operation of a
2	nonregulated reactor? What reactor in this country
3	is nonregulated? Come on. Ridiculous.
4	So I believe FFTF, with its natural
5	circulation properties, its operation at low
6	pressure, its design to the newest standards, is the
7	best place to do it.
8	Thank you very much.
9	THE FACILITATOR: Thank you.
10	We'll go over here.
11	STATEMENT OF BOB ANDERSON
12	BENTON COUNTY DEMOCRATIC CENTRAL COMMITTEE
13	MR. BOB ANDERSON: Yes. My name is
14	Bob Anderson, and I'm chair of the Benton County
15	Democratic Party Central Committee. And we had a
16	meeting, our monthly meeting, last night, and we
17	passed the following resolution that I'd like to
18	read into the record.
19	"Whereas medical isotopes are
20	increasingly being used in research and in providing
21	new, cost-effective, cutting-edge technologies for
22	the diagnosis and treatment of disease, including
23	cancer, heart disease, and arthritis; and

"Whereas the United States is

importing more than 90 percent of the

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reactor-produced medical isotopes currently used to
save a significant number of the lives of our
citizens; and

"Whereas market projections for utilization of medical isotopes for diagnosis and treatment show our country will need new production sources to assure a domestic supply to meet the increasing demand; and

"Whereas the Hanford Fast Flux Test Facility, FFTF, has unique capabilities for providing large quantities and a wide variety of high quality medical isotopes; and

"Whereas the FFTF was designed, constructed, and safely operated as a state-of-the-art reactor with world-class isotope production capabilities and is the newest, most sophisticated reactor in the U.S. Department of Energy complex, and as such is an irreplaceable national asset; and

"Whereas the FFTF is presently being maintained in a stand-by mode;

"Now therefore be it resolved, the Benton County Democratic Central Committee hereby encourage U.S. Department of Energy Secretary William Richardson to order the restarting of the FFTF."

Thank	you.
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THE FACILITATOR: Yes, sir. How

about you, and then -

STATEMENT OF MARK BECK

CITIZENS FOR A CLEAN EASTERN WASHINGTON

MR. MARK BECK: Hello. My name is
Mark Beck. I'm from Walla Walla, and I'm here
representing Citizens for a Clean Eastern
Washington. I'm also an assistant professor of
physics at Whitman College, so I know a little bit
about science.

The first thing I'd like to point out is, a lot of the basis for this programmatic environmental impact statement is the assumption that the DOE must supply these isotopes; whereas they're also pointing out that these are mainly for civilian missions. And I think that if these are really civilian missions and they really stand on their own merits, then the private sector will step to the bat and will come — will step to the plate and will produce reactors, accelerators, whatever it is, to take care of the problem. It's not the place of DOE to be subsidizing private contractors in doing this mission.

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In terms of medical isotopes, I think no one here will disagree that medical isotopes are needed. It's an important part of cancer treatment. However, I'd also like to point out that the - in the handout that was given tonight, it said that a blue ribbon panel in 1998 concluded that we will be needing more facilities for producing medical isotopes, and they predicted growth rates of 7 to 14 percent. However, in May of 1999, which was after this report was released, MDS Nordine, who is one of the world's largest suppliers of medical isotopes, announced that they are building two new reactors to produce medical isotopes. If these two new reactors come on, that will more than double the number of isotopes that are currently available.

Do we need the FFTF? I think we need to go back and look at the assumptions. For plutonium-238, previously the DOE said that it was not a viable source for plutonium-238 production unless the FFTF was restarted for tritium production. Will NASA guarantee that they will buy the plutonium-238? Do we really need this? Is this a viable source?

In direct relation to the environmental impact statement, I'd like to say

that for any reactor that is considered in this statement, we first need to consider an efficient, optimally designed reactor that is designed to maximize isotope production, minimize waste, and minimize cost. That has to be compared to operating the FFTF, must directly compare the FFTF to the optimal design over the thirty-five-year proposed mission for the FFTF.

If the FFTF loses, we have to shut it down and build the optimal design in any reactor scenario. If you're talking about a thirty-five-year time span you really have to talk about what is optimal. I think you're likely to find that if the FFTF is too big, it will produce too much waste, it'll be too costly, and comparatively dangerous to operate. A smaller reactor will be cheaper, will produce less waste, and will be more efficient at producing the isotopes that you want. It will also be able to be tailored more precisely to produce shorter-lived isotopes.

Also, any consideration of environmental health and safety impacts and costs must consider all possible waste streams. This includes target fabrication and transportation, fuel fabrication and transportation, spent nuclear fuel

from the reactor, the unused isotopes themselves, and all solid and liquid high-level waste generated in processing targets and extracting useful isotopes. All of these have to be considered.

And for each of these waste streams you must consider, where will it be stored? And this must be — where the storage will occur must be considered for the entire time that this waste is a threat, not simply just the thirty-five years of the mission. So if some isotopes has a hundred-year half-life and it's got ten half-lives to decay to a safe level, we have to consider storage for a thousand years. So where is it going to be; how much will it cost to store it for a thousand years? Consider health and safety impacts of all these streams.

You also must consider health and safety impacts of all credible accident scenarios. Let me point out a few that I think are credible accident scenarios. We currently have liquid waste leaking into the groundwater which is flowing into the Columbia River. It's happening now; it's credible that it will happen again in the future. We must consider the possible health and safety impacts of the waste generated in this production

1	getting into the groundwater and getting into the
2	Columbia. How is that going to impact public
3	health?
4	So what I would like to conclude is
5	by saying you need to reevaluate your assumptions
6	that this entire mission is necessary. I urge you
7	to shut down the FFTF and agree — and live up to
8	your 1995 agreement to use the money that was saved
9	by shutting down the FFTF to clean up the Hanford
10	nuclear site.
11	Thanks very much.
12	THE FACILITATOR: Do you have a copy
13	of your comments?
14	MR. MARK BECK: I'll mail them in.
15	THE FACILITATOR: Okay. Thanks.
16	I've picked a lady right here, and
17	this'll be the last before we take a quick break.
18	Yes, ma'am.
19	STATEMENT OF PAMELA BROWN
20	EXECUTIVE DIRECTOR, HANFORD COMMUNITIES
21	MS. PAMELA BROWN: Thank you. My
22	name is Pam Brown, and I'm executive director of the
23	Hanford Communities Organization. I appreciate the
24	opportunity to testify this evening.
25	A common concern of individuals who

both support and oppose the restart of Hanford's

Fast Flux Test Facility is the disposition of wastes
that would be generated from operation of the

reactor. The EIS should identify all waste streams,
evaluate disposition alternatives, and assess their
environmental impact on the region. Of particular
interest is whether these wastes can be accommodated
at Hanford without impacting the ongoing Hanford
cleanup.

Based on an analysis of last — based on an analysis done last year of reactor — of the last year of operation of FFTF, it is estimated that airborne radionuclides that would be emitted from the reactor operations would be far below the maximum offsite individual dose of 0.1 millirem per year

guidance established for the Hanford site in accordance with applicable Federal and state regulations. This should be verified in the EIS.

Nonradioactive waste streams
associated with FFTF operation include solid
hazardous waste, processed waste water, solid and
liquid wastes. Disposition of these wastes should
conform to state and Federal regulations.

Solid waste that is regulated as dangerous or extremely hazardous waste should be

identified. Disposition plans for the material should be explained, and any material destined for disposition at Hanford should be evaluated for any environmental impact to the site.

The EIS should consider whether any transuranic or high-level waste will be generated, and where the material would be dispositioned.

analysis of FFTF operations that has been provided to the Hanford Communities indicate to us that the small amount of waste that will be generated, which would remain at Hanford, can easily be accommodated. It would not impact other site activities or impair cleanup progress, but it is important for these assumptions to be verified and documented in the EIS.

We are very confident that if this EIS is done based on a fair factual analysis, that it will come to a conclusion that supports FFTF.

This community has not had a good experience with EISs recently being fair and factual, to be very honest with you, and we recognize there's a lot of political pressure in Washington, D.C., but we hope you'll be able to avoid it, and we wish you the best. Thank you.

1	Thank you.
2	THE FACILITATOR: Thank you.
3	It's a couple minutes past 9:00
4	o'clock. We'll come back at ten after. There's few
5	restrooms and a lot of people. Thank you.
6	(Recess, 9:02 p.m. until 9:14 p.m.)
7	THE FACILITATOR: Okay, we'll go
8	ahead and get started. Thanks for coming back. And
9	we'll pick up where we left off with alternating.
10	And again, just to remind of the format if you came
11	in late — and there were a few late registrants —
12	five minutes for individuals, ten minutes for
13	organizations, if that's appropriate.
14	And let's start — well, we'll just
15	start next to the microphone with this gentleman
16	here. Very nice shirt, by the way.
17	STATEMENT OF BOB SCHENTER
18	NUCLEAR MEDICINE RESEARCH COUNCIL
19	MR. BOB SCHENTER: This shirt - oh.
20	I'm Bob Schenter. I'm representing the Nuclear
21	Medicine Research Council, so I guess I get ten
22	minutes.
23	THE FACILITATOR: (Inaudible)
24	MR. BOB SCHENTER: This shirt
25	actually is from Indonesia. I was over in

Indonesia, and they have an outstanding facility
there to make medical

isotopes. I hope we don't have to rely on Indonesia to get our medical isotopes, and that'll be one of our major points.

Before I start I'd like to comment,

and thank the outstanding job that the facilitator and the Department of Energy have done. I've been to several of these hearings, and their professionalism, their integrity, and in my opinion, their fairness should be commented on. And I think that's — we should do that. Send a letter saying how well they've done that, to keep these proceedings so that everyone has a chance to speak, and everyone is not interrupted. And I think you've done an outstanding job, both the facilitator and the Department of Energy, in answering the questions, and I think we should recognize that.

I'm a member of the board of the Nuclear Medicine Research Council -- this is an organization in the Tri-Cities - and I am a past chairman. The Nuclear Medicine Research Council has developed a letter to Ms. Brown that I'll put into the record. A lot of thought has gone into this, and I hope and request that this letter -- it's three pages - be looked at very carefully. I think

(Applause.)

it's full of excellent constructive ideas that - a number of them were presented tonight, mainly focused on the needs for medical isotopes.

I won't read the whole letter. I think it reflects a lot of the comments that were said tonight, and it would be redundant. However, I would like to read three recommendations that are proposed. These are very constructive, and I think that's our goal, is to provide constructive -- rather than bashing the Department of Energy, rather than bashing Hanford, let's come up with constructive ideas of how we can proceed further. So I'd like to read the three recommendations. I think these are excellent parts of what should be included in the EIS.

Recommendation number one: The PEIS scope must include a realistic assessment of the types and quantities of medical isotopes required over the next thirty-five years. The assessment should consider the potential cost savings that medicine — that nuclear medicine has to offer. The assessment must take into account the projected growth of diagnostic application as well as projected growth of treatment applications, with contingencies built in for possible new applications

of medical isotopes not identified at the present.

This assessment must include input from other

Federal agencies, the private sector, medical

research organizations, universities, and

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stakeholders.

Recommendation number two: The scope of the PEIS must include an assessment of the types and capabilities of the neutron resources required to assure a reliable supply of medical isotopes for medical researchers and clinicians over the next thirty-five years. The scope must include an assessment not only of capacity to produce projected quantities, but also an assessment of the flexibility to produce a wide variety of radioisotopes whose initial quantity may be small. As the treatments become more refined, therapeutic doses will require that more energy from the radiation be deposited on the target cells - cancer cells, thereby requiring higher and higher specific activity radioisotopes. The neutron resources must therefore be able to produce sufficient quantities of high specific activity radioisotopes. Backup resource capabilities during shutdown periods of the neutron resources must also be provided to assure reliability.

1	Recommendation three: The scope of
2	the PEIS must include an assessment of the entire
3	infrastructure necessary to meet the significant
4	growth rates of medical isotopes over the next
5	thirty-five years. This infrastructure must also
6	include a reliable supply of radioisotopes available
7	to researchers and clinicians in small quantities at
8	affordable prices, so that needed early-stage
9	research and clinical trial work can proceed in a
10	way that can lead to widespread treatment
11	procedures.
12	Finally, I'd really like to get
13	together with the Walla Walla professor. My
14	daughter went to Whitman. And I think one of the
15	things — and I think this is the emphasis — let's
16	get together, review these things that's part of the
17	EIS process, and quantitatively determine the needs,
18	not make any predecisions. Let's do the
19	calculations, do the quantities, and get together,
20	both groups. Thank you.
21	THE FACILITATOR: Thank you.
22	Yes, go ahead.
23	STATEMENT OF CINDY MEYER

MS. CINDY MEYER: My name is Cindy Meyer, and I'm from Walla Walla, Washington. And

I'm really loud tonight.

THE FACILITATOR: Here. Take this microphone. Yeah.

MS. CINDY MEYER: I would like to see the United States government focus our funds, intellect, creativity, and effort on cleaning up Hanford, the most contaminated site on the continent. I think we need to remain especially vigilant in these areas regarding the start-up of the Fast Flux Test Facility. We are an agriculture-dependent community, and it is imperative we not pollute our crops through the water or the air.

Hanford is currently leaking radioactive waste. Since we already own the most polluted site in America, we must not produce any more waste, nor should we accept any nuclear waste from any other source. We should not divert even one dollar from the important mission of cleanup.

Restart of the FFTF violates the commitment the Department of Energy made to shut down the FFTF when they signed the Tri-Party

Agreement. The National Institute of Medicine has deemed that the FFTF is inappropriate for medical isotope production and calls market demand for these products speculative at best. If demand grew,

smaller more modern accelerators could produce a wider range of isotopes at lower cost without the safety and nuclear waste problems produced by the Hanford FFTF reactor.

And most importantly, I feel, is that I'm a mother, and my most biggest concern is for my children, and for everyone's children. And I think it's imperative that we get together, we concentrate on cleaning up, we don't import any more waste, and we, first and foremost, do no more harm.

Thank you.

THE FACILITATOR: Thank you.

Sir, I'd appreciate it if you would come up here. In the brown. Yeah. After that.

STATEMENT OF ROBERT FRANCO

BENTON/FRANKLIN COUNTY MEDICAL SOCIETY

MR. ROBERT FRANCO: Thank you. I am Robert Franco. I'm an M.D., retired surgeon. The Benton/Franklin County Medical Society, which is an organization of all the licensed physicians in the two counties, Benton and Franklin County, last April formulated a resolution, unanimous — by unanimous vote favoring the restart of FFTF. A copy of the resolution has been mailed to Secretary — Richardson; thank you — and another copy is on file

in the Medical Society office, Kennewick, Washington, 99336.

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Thank you.

THE FACILITATOR: Thank you.

The lady here, and then -

STATEMENT OF SUSAN BABILON

MS. SUSAN BABILON: My name is Susan Babilon. I'm from Walla Walla, Washington.

I think it's absolutely imperative that the PEIS include data on how much waste these various options totaled would result in - and that is all missions together, not considered - only considered individually; where and how these wastes will be stored or disposed of; how much waste will enter the environment directly; the quantity and type of radioactive materials that will be transported -- that is, added to Hanford from outside the area, including the routes these transportations will take, also where and how these materials that are brought into the area will be stored and disposed of; how these projects will affect the current and future Hanford cleanup missions of the legacy waste; the risk to the public from construction, operation, especially from generated waste and potential accidents, including

those caused by human error, malfunction of facilities, and natural disasters such as seismic activity, and from transportation of radioactive materials and accident scenarios. Also consider the hazards to the environment, especially to local groundwater, to the Columbia River, and to the agriculture in the area, from normal operations, storage of waste, as well as potential accidents.

I feel confident that if this information is considered, the risks to the area will be considered too great.

I think it's unconscionable to start any productive mission at Hanford, since such missions would add waste to this heavily contaminated area when we're faced with a lack of commitment and a lack of resources to adequately address cleanup, and when we, the residents of the area, have been promised by the Tri-Party Agreement that cleanup would be the future mission of Hanford and not restart with its additional contamination. I'd like to see an alternative that examines the environmental impact of no restart, no hot standby.

It's been stated that the DOE - in the article of intent, that the DOE concluded FFTF will not be restarted for plutonium-238 alone, that

the mission will only be considered if there are other missions at Hanford. We know there's no need for other missions at Hanford. Medical experts have said that more modern accelerators could produce a wider range of isotopes at a lower cost without the safety and nuclear waste problems that the FFTF would pose.

I think — I think the truth is that the DOE is fishing for projects for the FFTF. If we're looking for jobs, cleanup will provide more than enough employment opportunities for the residents of the area, and will more importantly provide a responsible solution and a responsible and admirable legacy for Hanford and future citizens.

Recently there was a speaker in Walla Walla discussing the possibility of restart of FFTF, and two Whitman College students stood up and were horrified that he would be spreading such lies.

Their father worked — well, fathers both worked at Hanford, they said, and they'd been promised by them that there was only cleanup going on here. I think if you're to enter a mission — if you were to enter a mission here, it needs to be one that we wouldn't be ashamed of to tell our children about.

Thank you.

1	THE FACILITATOR: Do you have a copy
2	of your —
3	MS. SUSAN BABILON: Yes.
4	THE FACILITATOR: Okay.
5	The gentleman — I've picked another
6	interesting shirt there, so go ahead.
7	STATEMENT OF NORM BUSKE
8	NUCLEAR WEAPONS-FREE AMERICA
9	MR. NORM BUSKE: Okay. Variety is
10	important. My name is Norm Buske. I represent
11	Nuclear Weapons-Free America, which sort of tells
12	you where I'm going with this.
13	The basic bottom line, of course, is
14	that I don't believe it is appropriate to use a bomb
15	plant to make medical isotopes. If we want medical
16	isotopes, let's use a factory that would produce
17	those rather than bombs.
18	Let me tell you how I get there.
19	I've been — basically, at the GAP conference on
20	Hanford in Portland a year ago, the public expressed
21	strong concern for the river and for the salmon, and
22	so I undertook to take a look at what the impacts of
23	Hanford were — or are, rather, on the salmon. Now,
24	I've been doing that by sampling mulberry leaves

along the shore. And we went public with some of

the strontium-90 results earlier in the year, and then last week we went public with thorium springs, which are downstream of F-Reactor.

And what that did is, uncovered basically a large process at Hanford using thorium-232 to produce in reactors uranium-233, which is fissile material. And that generally was not known, nor made public. And as I understand it, the fuels and materials involved are in the thousands of tons range. So this whole waste stream going through Hanford, or this production stream, and generally it was unknown, entirely unknown.

Some of you may live in Richland, you know, and maybe some of you even drink the water. The quality of that water is assured, as you know, by a downstream sampler, and they measure their radionuclides and many of the chemicals in it. If you take a look at the data through 1998, which is the current report, you'll notice that thorium-232 and uranium-233, the materials that are in this large waste stream at Hanford, are omitted. So next time you have a drink of water, just remember it isn't quite quality assured.

The point on that is that one has to be a little careful with the Department of Energy on

watching, you know, that everything that they do is tied down real tightly. And one of the concerns, of course, is that FFTF was not supposed to be restarted, and now we see that there is these missions. This bomb plant is to come up to produce medical isotopes, which, we agree we need the medical isotopes, by why a bomb plant?

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I raised the question, of course, if, you know, is it bomb a plant or is it not? And of course it says here what missions are not included, but as you could tell from my question, what I understand is that we suspect that a separate NEPA review might be required to go into special nuclear materials production for bombs. In other words, DOE really is not required to do that. And what it looks like from my standpoint is, it's a bomb plant. And what I ask that be included in the EIS is - is that which is not precluded; that is, that the bomb missions be run through it not as missions, but as a client after - client projects after the reactor is restarted. Some of that would have to be classified and could not be published, but you can march through it, and in the outcome you can have the environmental impacts of the weapons; that is, if you produce weapons, they'll be used.

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The U.S. basically is the standard setter in the world today as far as proliferation and other matters. If we go into what are these very special materials, super-fissile materials, the things that you can really only produce well with FFTF, those things are going to be used, and then they'll be used on us. What I suggested in Seattle was that they consider the Seattle Center as an exemplary impact site; that is, that a range of devices would be set off in Seattle Center. propose for the EIS that we include the Tower Inn as an impact site, so we have two epicenters for the

Thank you very much.

THE FACILITATOR: Thank you.

Yes, sir.

STATEMENT OF ROBERT BEACH

My name is Robert MR. ROBERT BEACH: Beach, and I'm a resident of Kennewick. I do work at FFTF, so you might think that I'm prejudiced, but I think you'll find my letter rather not that way.

First, I regret these hearings in the Northwest have been disrupted by the voice and actions of a misguided emotional minority. should not allow this to cloud our view of the

reason that we're here. The reason for this study is not whether or not to restart FFTF. The study should address the question of the need to produce isotopes in the United States for medical and other commercial uses, such as food irradiation. This is a much more important national issue than whether one reactor continues to operate or not.

having too many splintered projects with no overall guidance as to where the country should go. For example, the plutonium burn project, the Pu-238 project, isotope production projects of various types, all of these could have been combined quite economically in the operation of the FFTF, but each project wanted to run independently at what, to them, was the lowest cost for them alone. There was no evidence of a coordinated plan that looked at the lowest cost to the American public. The proposed EIS appears at least to be an attempt to start that effort.

The present administration has operated with the evident intent of complete elimination of the nuclear industry in the United States. They've done everything possible to meet this end with nonproliferation as their professed

goal. It now appears evident that these words on nonproliferation are just that. There is no real connection. This was just a way to remove the use of the valuable resources of nuclear energy to suit political means.

Before this EIS can be completed, the DOE must decide whether the U.S. government is going to support programs promoting the health and welfare of the general public. This is critical, since the DOE has consistently disregarded the needs of the public in meeting the cries of the political minds. If there were three fully loaded 747s crashing every day, there would be urgent action within the government. This is not the case when one looks at the number of cancer deaths, the resulting medical needs of the public, and the exciting possibilities that exist to meet these needs.

If the DOE cannot take this bold step forward, then perhaps the legislature needs to step in and dictate actions to be taken. We just need to get out of the endless political morass that we are in, and honestly face up to the fact that the public needs the government to produce something for them. I had cancer in my family, too.

Cost of this project is not really a question, not when there exists the possibility to greatly improve the health and welfare of the general public. If this EIS is well done; it should bring this need out into the open.

The EIS should clearly state, first, that the United States government fully intends to take all steps necessary to develop and fully utilize the use of radioisotopes in medicine and in other civilian applications such as the elimination of e-coli through food irradiation.

Two, an unbiased evaluation of the future requirements for medical isotopes and other commercially used isotopes should be made. This would be independent of the production source.

Three, an unbiased evaluation of the capabilities of the present DOE facilities to meet these needs, along with meeting all their other present needs, must be made.

Fourth, an unbiased evaluation of the future lifetimes for these existing and rather aged DOE facilities should be made.

Fifth, an unbiased evaluation of the environmental impacts resulting from the various

methods of production should be made. As a side 1 note, it's strange that the completion of an EIS on the environmental impacts of FFTF operation is 3 necessary at all, since the plant has been evaluated and operated for tens of years with minimal or no impact. Sixth, a conclusion as to whether any of these proposed alternatives make sense should be 8 Actual economics are important, but that's made. not the sole governing force. 10 In conclusion, DOE has long stated 11 that they want to leave a lasting positive legacy in 12 the Pacific Northwest. A center dedicated to the 13 production of isotopes, including not just the FFTF, 14 but the other facilities necessary to produce 15 medical isotopes and distribute them, would be such 16 A man of vision could see that further 17 a legacy. development into a national research facility to 18 support nuclear technology would be -19 20 THE FACILITATOR: 21 MR. ROBERT BEACH: - something that we're presently allowing to languish. 22 23 THE FACILITATOR: Thank you.

THE FACILITATOR: Thank you. Thank

MR. ROBERT BEACH:

Thank you.

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AMERICAN SOCIETY FOR METALS INTERNATIONAL

MR. DAVE WATROUS: I'm Dave Watrous, representing the American Society for Metals, local chapter, a group of 40,000 of us in the U.S. I have been a nuclear materials engineer for forty-three years at this point, half of the career spent here at Hanford.

 $\label{eq:Andour organization} \mbox{ And our organization is in support of }$ the FFTF and EIS.

(Facilitator adjusting microphone.)
Oh, that's good. Okay.

The Fast Flux Test Facility has drawn considerable criticism from anti-nuclear activists regarding nuclear waste generation. And you've heard this from Gerry Pollet and others this evening. Many distortions of fact and outright lies have been stated as excuses to not restart the FFTF. An example is a flier that I saw from the Tides

Center in San Francisco that claims that significant levels of cesium-137 and cobalt-60 in the Columbia

River are equated to releases from the FFTF, whereas absolutely no radiological releases were ever made

to the Columbia River from FFTF.

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Actual facts are that FFTF will generate extremely low levels of nuclear waste during production of plutonium-238, medical and industrial isotopes, as well as supporting various research and development missions, as you've heard tonight. Thus, this proposal for a least-waste-case scenario for the operation of FFTF.

In order for the FFTF to be productive, we need reactor fuels, control rods, and targets in order to make various products. we've got to make them, and use them, and get rid of them. If operated at 100 megawatts thermal, FFTF will operate about six years on the current supply of fuel we have. If we then use the German fuel from SNR-300 that has been offered to us in 1991, where I was a participant and the coordinator of the meeting here in, actually, Pasco, we would have another fourteen years of supply of fuel, and \$30 million to the Treasury, or whatever you want to modify the fuel, which is to take the fuel and turn it upside down inside of a new fuel assembly which would be made in the U.S. Other options would have to then come on board after the twenty-year mark, and there are various ways of doing that, including

using INEEL to do so because they are in the process of getting ready to do a MOX fuel. And so with that in mind, we wouldn't produce any waste in our part of the territory. Control rods produce no waste.

They start off as nonradioactive boron carbide. No problem. Neptunium targets, on the other hand, are very much highly radioactive. They would probably be made at Savannah River because that's where it is now. And I would hope that they would continue making the targets because that's where most of the work was done.

Operation of the FFTF itself produces significant radioactive products inside the core — no question there — but near zero releases to the environment. During operation from '82 to '93, the FFTF released no radiation to the soil and extremely minimal tritium releases to the atmosphere, primarily from the international tests for the fusion first-wall work for breeder materials development. During 1992, as Pam Brown was saying, the plant emitted a total dose equivalent to the public of less than one-ten-thousandth of a rem — millirem; excuse me — approximately one three-millionth of that naturally occurring here in the Tri-Cities. The reactor and coolant systems, due

to the nature of the sodium coolant, are closed, sealed systems, and release nothing.

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No high-level waste will be produced during operation which is to then be placed in Hanford waste tanks. Let me repeat that because this has been a subject that has come up several times. No high-level waste will be produced during operation that will be placed in the Hanford waste tanks. None.

Ten years of operation of the FFTF has produced 11 metric tons of spent fuel. Operation at 100 megawatts for the next thirty-five years would produce another 16 metric tons. This contrasts with over 2,100 metric tons in K-Basins at this point, which are then to be transferred to the canister storage building. The total space that we are now using on a pad at FFTF is such that with the rest of this fuel, it would occupy less than a football field. Where would you put it? Interim disposition would be in the canister storage building in the 200-Area. That's at least one option.

The solid dangerous waste products from the plant will consist of rags, and comparable materials totaling about four cubic meters per year.

A dump truck. The material would be shipped to a RCRA facility for treatment, storage, and disposal, by law. Solid mixed waste would total less than a half a cubic meter per year. Low-level liquid waste is expected to total 1,000 to 1,500 gallons per year, which could be transported to the 200-Area Effluent Treatment Facility for processing and ultimate disposal of the resulting noncontaminated effluent in the state-approved land disposal site north of the 200-West Area. Nonradioactive liquid waste would be treated at Energy Northwest, and solids would be transferred to Richland, if they can ever get the contract signed again, or other contracted sites.

Activities subsequent to reactor operation would produce no waste at Hanford, including the plutonium-238 separations, which would be done elsewhere.

Processing of medical isotopes will produce amounts of radioactive waste at Hanford, one of the options being the 325 building at Hanford. There are other options on other sites. The fifty-foot open test assemblies used for medical isotopes would also contain — that contained the materials that produced the isotopes would be

disposed of as high-level solid waste totaling two assemblies per year. They — and there are already several MOTAs that have been — that have gone through the process.

In summary, FFTF operations at

Hanford have been very successful, and have produced
minimal radioactive waste. A least-waste-case
scenario — which I have trouble pronouncing in a
row — would continue to produce negligible amounts
of waste at Hanford. Absolutely no high-level
liquid waste would be added to the Hanford tanks.
The total increase of waste volume at Hanford would
be expected to be far less than a hundredth to a
tenth of one percent of that already present.

That ends my basic remarks. I have three minor comments — two minor comments. I'll skip the third one.

In our local newspaper, an opponent has stated that there's a 30 percent probability of public harm if — during operation of FFTF. This — if you look at the reports that have come out, this is not true. Therefore, what I would like to propose is a new, more likely measure of harm to Seattle from the operation of FFTF. It would be 1 divided by a googol. In case you don't know what a googol is,

it's ten to the hundredth power. So that's the harm that's likely in Seattle, if I can use that term.

The other one is, they compared FFTF to Monica Lewinsky. And in this case I would suggest we change the metaphor somewhat. Change it to somebody positive, such as Elizabeth Dole. And you've heard about her very recently, like yesterday. She has had a series of ups and downs in her career, mostly ups, and she has a bright future, if you look behind the scenes at what's going down; particularly, if money becomes available. And that's what FFTF needs.

THE FACILITATOR: Thank you. Do you have a copy of your comments, sir? Thank you.

I selected the gentleman over there in the brown jacket, and then moving over to the other side, I'm going to the guy at the very back who's been standing all evening. I feel sorry for him. Okay? So you can come up after that.

Go ahead.

STATEMENT OF EDWARD SICILIANO

MR. EDWARD SICILIANO: First of all, let me introduce myself. My name is Edward Siciliano, a nice Irish boy from Brooklyn. And I've been here in Richland — I live here in Richland,

I've been here for nine years. I came from an academic background and doing teaching at two major universities as a professor of physics for a few years. And I know Ernie, so give him — say — tell Moniz that Siciliano says "Hi." We worked in a similar field — the nuclear and particle physics.

I've consulted throughout the world. I've lived in many states, and basically I'm settling down here.

I choose to settle down here. The quality of life is high.

I'm not a red-blooded technoid that's for progress for all sake. In fact, I was looking through the issues that I helped shut down while I was in Santa Fe, and that includes a mass burn incinerator, the solid waste dumping areas. There were over 200 in New Mexico when I was there last, before I came here. There were over 200 unregulated landfills, and I helped take part in making 30 regional landfills. And finally, there was this pumice mine business going up in northern New Mexico, and this fellow who was our representative for northern New Mexico — his name was Richardson — worked with me, and we helped shut that place down in terms of revamping the 1817 Mining Act. You may be familiar with that.

So I'm just saying this because I believe that the onus is on technical people to not necessarily beat the nontechnical people over the head with facts, but to try to communicate because fear is a very real thing. I've seen it. Yet radiation is a very natural thing; I see that. And I'm certainly willing to call a spade a spade, and just get your facts straight, but I think the responsibility is to communicate.

Now, since my background was primarily in education before I decided to take the challenge and do something about waste, and come up here and do something about waste, I have to give you my interpretation of "EIS." And I read it "educational impact statement." Let me tell you why I say educational impact statement. Because if you are at all concerned about bridging the future to the nuclear option for energy generation — I'm not talking about this generation; I'm talking about next generation — you realize that some of the reactors that are small reactors at universities — and believe me, I've sat across the hall from these things; they can operate safely — they're used for training graduate students.

Now, as in the nuclear and particle

world, when we needed larger energies we had to go
through fewer accelerators, and so universities had
to give up their own individual machines. But the
way that was carried out was through this thing
called "user facilities." And so what happens was
there were one or two designated user facilities
that acted as the collaboration vehicle for the -for home professors and the home students to design
experiments, propose experiments in front of a
program advisory committee, get approved, come and
stay a while, do their experiments. It gave you
both a win from the educational part, and a win from
the facility part.

Again, every facility has a finite lifetime, but I think that there's a very interesting and opportune time here to view FFTF as a potential user facility in the Northwest. So I'm making an educational impact statement in which I strongly support FFTF to not only produce isotopes as a bridge until we get a real isotope machine, but to be a user facility for the Northwest for nuclear engineering.

Thank you.

THE FACILITATOR: Thank you.

I selected the guy standing in the

back. Do you have some slides you need to - I'll put them on, put them up for you.

MR. DAVE JOHNSON: Yeah.

THE FACILITATOR: Yeah.

MR. DAVE JOHNSON: Okay, yeah. My name's Dave Johnson, and I'm a board member of Heart of America Northwest. And a lot of guys probably know me from this room, 'cause I worked at Hanford for many years. In fact, I worked for Bob Schenter for a number of years.

And this is a viewgraph of the FMIT facility which was designed here between 1977 and 1984, on the top. Now, nobody can see all the details on there, but what I'm trying to say is, this thing was designed and ready for construction in 1984 when the fusion budget ran out.

And let me go to the second viewgraph, and I'll show you a little bit more. Okay. And - no, bring it down a little bit.

On the upper left corner is a view, a close view, of the target, which is liquid lithium.

And the beam comes in from the right. Well, this is an accelerator-based neutron source facility. And it's a beam of deuterons, 35 MEV, hits liquid lithium target, stops in there. Some fraction of

the deuterons break up in there, and the
neutrons keep going in the former direction. And
that orange thing over there is kind of the balloon
that represents a large volume of the neutron flux
there, which is comparable to that found in the
FFTF.

So what I'm here to pitch is for the environmental impact statement to take a look at this concept for an accelerator-based neutron facility to -- as a competition for the FFTF reactor.

And some of the reasons that I think it would be better are, first, cost. Look at cost. Now, I — the FFTF proposal says that it would take \$229 million to restart the FFTF. Based upon the FMIT data, upgraded a little bit, I estimate it would be less than \$200 million, from scratch, to restart such an accelerator-based neutron source facility.

Then there's operating cost, the second item. I think that the PEIS should take a look at that in this accelerator concept. FFTF proposal says it would cost \$55 million a year to operate the FFTF. Based upon the FMIT data, I estimated it would cost \$10 million a year to

operate this accelerator.

Third one is cost recovery. The FFTF proposal says during the first few years of operation of the FFTF, medical isotopes would bring in about \$10 million a year. Well, the operating costs of this accelerator is about \$10 million a year, so it matches. On the other hand, the FFTF doesn't match it. There's a shortfall for the first year or so of \$24 million, and it takes a while for the medical isotope business to grow, if it's accurate, such that eventually it will match the expenses of the FFTF; whereas, you know, if the number of costs — or, the revenue brought in by medical isotopes is accurate in the FFTF proposal, this accelerator could start generating a profit, you know, shortly after operation.

Now, a fourth item is that you can produce all the medical isotopes, the neutron-induced isotopes, with this kind of an accelerator, but you can also use the beam itself. The beam, when irradiating various targets, will generate a number of medical isotopes that can't be produced in the FFTF. So you have the opportunity for making more isotopes, including the short-lived positron emitters that can't be produced in FFTF, so

you'd have a local source.

Now then, there are other things like -- what is it? Safety, you know. Now, I'm not saying that the FFTF is the worst reactor that was ever built, but you know, there's certainly concern. That's why we have control rods, that's why there's concern about uncontrolled chain reaction, you know, release of sodium. That's why there's a containment vessel. There's no similar issues here with an accelerator. No need for a containment vessel.

THE FACILITATOR: Thirty seconds.

MR. DAVE JOHNSON: Then finally, the radioactive waste. You know, there would be some radioactivity here, however there would be no fission products, and no transuranics which eventually have to be, you know, disposed of somewhere. The FFTF, sometime, will have to dispose of those fission products and transuranics that are generated in it. I used to work on the FFTF.

Anyway, I think that the PEIS should consider this as an alternative, and they should also consider Los Alamos National Lab to evaluate this proposal.

THE FACILITATOR: Thanks. Do you want those back? There you go.

And actually he came all the way from
the other side, so I'd picked this lady right here
to come up from this side a bit ago. Thanks. Go
ahead.

STATEMENT OF RHEAN SOUDERS

MS. RHEAN SOUDERS: I'm Rhean

Souders. I'm from Walla Walla, and -

THE REPORTER: Could you say the name slowly, please?

MS. RHEAN SOUDERS: Rhean, R-h-e-a-n, Souders, S-o-u-d-e-r-s.

When we see our friends and family dying and suffering from cancer and other diseases, it's really hard not to feel a sense of urgency that we need to do something about this now, we need to save the people we care about and at least save them some suffering if we can't save their lives. But I think this is very shortsighted. We need to look at the long term and to talk about preventing cancer before it starts. The mission at FFTF, these medical isotopes, do nothing to prevent cancer. It's not going to keep anybody from getting sick. All it's going to do is help some people who are already sick. But what is it going to do down the road?

A gentleman earlier talked about

three 747s crashing every day, and it seems to me that this analogy really is like saying, well, let's take our aviation safety dollars and let's put them into figuring out how to make parachutes for people when the planes are going down, or let's figure out how to bring people back to life after they've hit the ground, rather than making the planes safer, finding ways to prevent these crashes before they happen.

We've already got groundwater contamination happening. It's already in there. It's — it's not like, well, we're not sure, it might happen. It's there, and it's going to get worse. There's going to be more contamination in the water as these tanks continue to leak. This is completely unacceptable. If there's any addition to the waste stream from Hanford it's going to make this issue worse, even if it's just a little bit. If you have a glass that's already overflowing, if you add a single drop to it, it's going to overflow more. And this is unacceptable.

We have other options to make these medical isotopes. Of course, we want the isotopes. We want to help people, in addition to preventing more cancers. But we have other options, as has

been discussed here by people who know the physics better than I do, who know the economics better than I do. We need to look into those before we start talking about adding to the waste stream at Hanford. The only mission at Hanford should be what the DOE has promised, that it will be cleanup, only cleanup, and no more production. Thanks.

THE FACILITATOR: Thank you.

The gentleman here in the -- yes.

Sure. Then coming back over here, we will get you in the blue.

STATEMENT OF GEORGE RUGE

MR. GEORGE RUGE: My name is George Ruge, and I'm from Richland, Washington. I have three points that I'd like to make.

The first point is, I'd like to applaud the decision for proceeding with this programmatic environmental impact statement. I think such a plan for an infrastructure requirements necessary to satisfy future irradiation services is long overdue. I think the PEIS process will form the basis for solidifying a strategic plan for the effective utilization of existing facilities, and I personally feel it's exciting to think about developing a stable domestic supply for

plutonium-238 and medical purposes.

Point number two, I think
statistically one out of three of us will develop
cancer in our lifetime. I am a cancer survivor for
the past twelve years, so I know first-hand that
once one is diagnosed, one is grasping for treatment
options. The primary treatments for cancer are
nearly barbaric, and haven't changed for decades.
They consist of surgery, cutting out the tumor and
the surrounding tissue; chemotherapy, which is
basically a shotgun approach for treating the entire
body using a variety of engineered poisons; and
external beam therapy, which treats both — treats
and damages both the tumor and the surrounding
tissues. My personal treatment involved two rounds
of the former and the later.

I don't know if internal medical use of isotopes or smart bullets would have been effective against my liposarcoma, but I would have liked the additional noninvasive option available back in 1987. I know my mother, who is a survivor of both kidney and bladder cancer, feels similarly. I pray that a more effective and humane treatment options will be available as my two young daughters grow up.

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My third and final point is, I feel that I am qualified to discuss the potential uses of FFTF and FMEF. I spent ten years with the engineering staff at FFTF in start-up and operations. I spent thirteen years with the engineering staff starting up and operating FMEF. I know the quality of these facilities, their staffs and their untapped potential. Their capabilities complement each other very well. Use of these combined resources eliminates many of the transportation issues presented by the other options.

Finally, I feel that the utilization of these two facilities would be effective use of DOE resources and would result in a win/win situation for the public; that is, resulting in desirable products at a least cost.

THE FACILITATOR: Thank you.

STATEMENT OF SOL GUTTENBERG

I'm Sol Guttenberg, the Engineering Manager for the Fast Flux Test Facility, and I have been associated with the plant since 1971. As such, I believe that

MR. SOL GUTTENBERG: Good evening.

I am especially qualified to speak to the factual, technical attributes of the FFTF and the proposed

missions.

team.

excellence. The FFTF is the most unique and versatile test reactor in the world. It is the only DOE reactor built to commercial light water reactor standards. The design criteria were extremely conservative, and as a result the plant is very robust. Its start-up phase and ten years of power operations were exemplary, and are attested to by the numerous awards that the facility has received. This standard of excellence is also reflected in the plant staff. Their professionalism and experience provide a benchmark for maintaining staff excellence. I am proud to be associated with this

Moving on to reactor safety, the plant has an enviable record even among commercial light water reactors. Building on sound technical principles, the plant safety systems reflect both diversity and redundancy. In fact, as a result of its unique features, preliminary studies conducted several years ago indicated that the probability of occurrence of a severe accident at the FFTF was approximately 100 times less than a typical commercial light water reactor. It is our intent to finalize these studies if FFTF were directed to restart.

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releases no radioactivity to liquid pathways, and routine releases to the atmosphere are essentially zero. For example, in 1990, a typical year of power operation, the maximum exposure to an off-site individual was 0.00056 millirem. This is approximately a half a million times less than the dose that each of us receives from natural background sources of radiation. My expectation is that this minute exposure would be comparable for the proposed missions as well. I can go on, but the message is clear. The FFTF is a safe reactor.

Statements to the contrary either reflect a lack of

From a radiological perspective, FFTF

Another topic of interest is waste generation. FFTF operation, as with all industrial activities, will generate some wastes. The quantities of waste generated by the FFTF missions are expected to be very small and comparable to types and quantities of waste that were generated during previous operation of the plant. These wastes would be safely managed in full compliance with state and Federal laws, as they are now. The

technical competence, or are a deliberate distortion

of the facts to pursue a private agenda.

existing Hanford site waste management facilities can readily accommodate this small incremental waste with essentially no impact to the Hanford site cleanup schedules. For example, it is estimated that if all the liquid low-level radioactive waste expected to be generated by the FFTF missions over a projected thirty-five-year life could be processed in the 300-Area Effluent Treatment Facility in less than two days. Thirty-five years in less than two Similar comparisons demonstrating low impacts can be made for all the projected waste streams. fact, the projected or expected quantities of waste are typically within the error bands of the Hanford site waste forecasts themselves. Of course, the PEIS will formally address waste stream quantities and impacts for each alternative under consideration. The main point here is that the waste streams are very small, can be readily accommodated, and pose no threat to the public or the environment.

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With respect to the proposed missions, the size and versatility of the FFTF is a plus. I am sure that others will speak to or provide written comments on the need for medical isotopes in the battle against cancer, providing a

reliable source for Pu-238 and enhancing nuclear research within the United States, and therefore I will not address these further. And as a matter of fact, that has been done tonight. Let it suffice that I am confident that FFTF can safely and effectively accommodate these multiple missions. In fact, comparable activities have already been performed at the plant; for example, isotope production, target irradiation, international collaborative endeavors, special fuel and materials testing, et cetera, were successfully conducted while maintaining excellence of operation and safety. FFTF did it before, and FFTF can do it again.

THE FACILITATOR: Thank you.

MR. SOL GUTTENBERG: Thank you.

STATEMENT OF GAI OGLESBEE

MS. GAI OGLESBEE: Hello. I'm Gai Oglesby. You saw me here before. And my ancestors and I have lived in this country since the 1940s, so we've heard a lot about Hanford from the start to now. This whole issue has to do with much research, and who you trust, and what you trust. For those who are ill in this audience, I wish you well, and you must decide what is best for you. My family and I are doing what we believe we have to do. The site

cannot be cleaned up. Only cleanup projects can be implemented and improved. And I think anybody that works at Hanford knows that. The U.S. DOE is not going to take care of anyone yet.

I have a little thing here that I'm going to read as far as I can, till my time runs out, about radioactive munitions, depleted uranium contaminants in the U.S.

"When the Pentagon radically revised its tally of deaths from friendly fire during the summer, it did so after testing vehicles damaged and destroyed during the Gulf War from radiation.

Depleted uranium shells left a telltale radioactive residue in the ruins of the military vehicles they hit. Since the U.S. and British are the only militaries to use depleted uranium in their anti-tank munitions, the Pentagon was forced to concede that at least 35 of the 148 U.S. soldiers killed in battle during the Operation Desert Storm were victims of fire by their fellow soldiers.

Seventy-two of the 467 GIs wounded also fell victim to friendly fire.

"A secret report by the United
Kingdom Atomic Energy Authority, AEA, said at least
forty tons of depleted uranium or DU were left

behind by allied armies. The report calculates that there is enough uranium in Kuwait and southern Iraq to cause 500,000 potential deaths. The report, prepared in April, was revealed in November by Independent — by an independent British newspaper.

About 5,000 rounds of DU were fired by U.S. tanks, and many tens of thousands by U.S. aircraft.

British tanks fired a small number, said the AEA report.

"DU dangers. The danger comes not only from a direct attack by DU shells. The uranium particles spread by the war pose a long-term health threat in and around the battlefield. People in the Gulf War region who lived for months under the cloud of smoke from oil well fires face a longer-term additional airborne hazard from uranium particles.

My son-in-law was on the front lines, 101st

Airborne, and he's getting worse from his illnesses.

We're not very happy about that, 'cause the government's not helping him.

"The AEA, while saying that half-million potential deaths was an obviously not realistic theoretical figure, added that the volume of uranium in the desert does indicate a significant problem. Depleted uranium is the by-product of the

uranium enrichment process for nuclear weapons

production and nuclear reactors. These industries

use uranium-235. During enrichment, the percentage

of U-235, a more radioactive and less stable form of

uranium, is raised leaving large amounts of the

less radioactive U-238 which predominates in

natural uranium as waste. DU consists of 99.8

percent U-238 which decays slowly, emitting

primarily alpha radiation."

These - I'll just go on.

"In a deadly form of recycling, the DU is molded into the armor-penetrating shells fired by M-1 Al tanks, A-10 attack planes, and Apache helicopters. Navy warships use DU shells in their anti-aircraft guns. DU is also used to harden the armor of tanks and Bradley Fighting Vehicles.

Ironically, in the Gulf War only DU shells pierced M-1 tanks' DU-hardened armor.

"DU is especially dangerous when inhaled, or enters the body through a wound or by swallowing. While U-238's alpha radiation does not travel far — a piece of paper or the skin can stop it — it can cause a great deal of damage once in the body, where it can cause cancer and genetic defects. Unlike an X-ray, which provides" —

1	THE FACILITATOR: Thirty seconds.
2	MS. GAI OGLESBEE: — "a brief
3	exposure" —
4	THE FACILITATOR: Thirty seconds.
5	MS. GAI OGLESBEE: Okay. I want to
6	state —
7	"Contamination at home. In the U.S.
8	groundwater contamination has been found near a test
9	site in Minnesota. In Socorro, New Mexico, at
10	another test site, U-238 has contaminated a pond
11	used to irrigate a golf course."
12	There's a whole bunch of these
13	contaminated areas from U-238.
14	"If New York State authorities were
15	concerned about the release each month of radiation
16	equivalent to the particles from one or two uranium
17	projectiles, why isn't the U.S. government concerned
18	about the effects of tens of thousands of
19	projectiles being fired in a few days at war?"
20	THE FACILITATOR: It's five minutes.
21	MS. GAI OGLESBEE: Okay. Thank you.
22	THE FACILITATOR: Thank you. Do you
23	have a copy of the - yeah.
24	MS. GAI OGLESBEE: I'll turn it in to
25	this lady right here.

STATEMENT OF ERIN GAJARSZKI

MS. ERIN GAJARSZKI: Hi. I'm Erin
Gajarszki, and I'm with Heart of America Northwest,
but I'm here today representing myself. I'm here
today representing the food chain, many of the
animals that roam around the Columbia River and use
that as a resource, as a habitat, as food, that roam
around the Hanford Reservation. I represent those
that can't be here tonight, hundreds of citizens
that couldn't be here tonight for various reasons.

Before any missions are considered which lead to the restart of FFTF, the Hanford Nuclear Reservation must be cleaned up to the fullest extent possible. Sixty-eight of the 177 tanks are leaking through the groundwater towards the Columbia River. This has serious implications, not only on the public health, but the ecological integrity of the Columbia River, including salmon spawning, including the deer and the other critters which feed on the vegetation that reach the groundwater that is contaminated.

My point is, is that FFTF restart will only add more waste to the leaking tanks at Hanford. Yes, these tanks are leaking, but yes, over \$100 million has been diverted from our cleanup

funds into the hot standby of FFTF. The Tri-Parties have not met the commitments of cleaning up these tanks which is outlined under the Hanford cleanup agreement.

Under the scope of the EIS I would like to see the impact that the waste created at FFTF will have on these tanks. These tanks are corroding right now, as we speak. These tanks are at risk of explosion. And as the woman mentioned earlier, one drop more to these tanks could have serious, serious implications on public health and the river.

Also, regarding the production of plutonium-238, I know you say that NASA will purchase this plutonium-238 at Hanford. I've been told that NASA's actually cutting out the use of plutonium-238, so under the scope of this agreement I want to know where that binding contract is that that NASA's going to purchase this material from FFTF. I want to know that they're going to purchase it. I want to see that promise.

And that's it. Thank you.

THE FACILITATOR: Back — I'm going to go back to this side. Comments from over here?

No? Well, did you change — okay. There's a

gentleman right here in the green jacket.

STATEMENT OF WALT APLEY

MR. WALT APLEY: My name is Walt Apley, and I live in Richland, Washington.

that the potential future needs for research and irradiation services warrant designing and building a new state-of-the-art reactor to provide a steady state source of neutrons. But I also believe that PEIS Alternative 4, which is building that new reactor, is not a viable option because the billions of dollars in funding would never be approved, given other national priorities; and even if it could be approved, it would take an entire generation for the authorizations, reviews, construction, testing, and placement in operation.

Given that building a new reactor is not a viable option, the Department should make their decision based on considering which existing facility is the safest, most reliable, represents the most modern technology, has the best operating record, and most fully supports the known and possible needs. I personally believe that the FFTF is that reactor, and I also believe with all my heart that if FFTF was located in Idaho, or South

1	Carolina, or New Mexico, or Tennessee, it would be					
2	successfully operating today.					
3	Finally, this August, Secretary					
4	Richardson made the decision to begin the NEPA					
5	process for the FFTF based on the nineteen to two					
6	recommendation of the Department's Nuclear Energy					
7	Research Advisory Committee. Yet, paradoxically,					
8	DOE has not requested sufficient funds to maintain					
9	the FFTF in FY2000 pending either shutdown or					
10	restart. That shortfall must be corrected to make					
11	this PEIS process honest and fair. I'd ask that the					
12	DOE representatives here today take that message					
13	with them back to Washington, D.C.					
14	Thank you.					
15	THE FACILITATOR: Did you have a copy					
16	of yours you want to give us?					
17	MR. WALT APLEY: No.					
18	THE FACILITATOR: Okay.					
19	STATEMENT OF BRUCE KLOS					
20	MR. BRUCE KLOS: My name is Bruce					
21	Klos. I'm representing myself, and I'm from					
22	Kennewick, Washington.					
23	THE FACILITATOR: Can you get closer					
24	to the microphone?					
25	MR. BRUCE KLOS: Okay. My name is					

Bruce Klos. That's K-l-o-s. I'm from Kennewick,
Washington.

THE FACILITATOR: We're going to go back up to this mike. You've got a soft voice.

MR. BRUCE KLOS: I have a soft voice. Okay.

THE FACILITATOR: Let's try it again.

MR. BRUCE KLOS: Okay. I'm a soft

kind of guy. Okay? Okay, thank you.

I request that in addition to those mission areas and alternatives identified in the Notice of Intent that the Department include as part of the cost analyses an estimate of the savings to the Medicare program that would realized by the use of medical isotopes. Advances in medicine have extended the lives of most Americans, and in fact, it is estimated that the population of the elderly, those who rely on Medicare for treatment will double from almost 40 million today to 80 million in thirty years.

In America, the average incidence of cardiovascular disease is one in two; for cancer, one in three. For the elderly, these odds are even higher. Given this data, it should not be a surprise that Medicare costs are going to increase,

increase substantially. The solution to this very real problem will require one or more of the following:

Increased taxes to cover increased costs; decrease the amount that Medicare will cover and pass those costs on to the elderly; support initiatives that reduce the cost of treatment.

Based on a cost comparison of conventional treatment and that associated with the use of medical isotopes, medical-isotope-related treatment is typically one-half of the conventional treatment. Therefore, Federal support for the expansion of medical isotopes will not only save lives and significantly improve the quality of life, it will significantly reduce the cost of treatment and substantially reduce the future cost to Medicare.

Preliminary conservative estimates place these savings in avoided treatment costs with the medical isotopes at more than \$600 billion over the next thirty years. These are hardly savings to be ignored. However, for these savings to be realized, the Federal government must fund the

research that advances the science of medical isotope use; must assure that an adequate supply of research quantities of medical isotopes is available to support the research; and lastly, assure that production facilities are available to meet expected demand.

I have one final note that I wanted to make. There was a comment that was made earlier by a representative from the Heart of America stating that the program scoping plan misrepresented the deactivation costs. And I believe the source of his comment was a document that was submitted, the field work proposal, in April, that identified those costs. That document, by form, identifies the cost for three years. And true, those three years of cost total about 150 million.

However, that document also very clearly identifies that the deactivation period is six years, so the representative from the Heart of America must not have understood, or must have thought that the next three years were for free, if he assumed that the total cost was 150 million. I guess I would offer the comment that either the individual is illiterate, incompetent, or a liar, and I'll leave that up to the audience to determine.

THE FACILITATOR: Thanks. Let's not head down that road here this evening.

I want to get the guy here with the slide. He told me about it earlier, and I want to make sure I get it before our equipment goes away.

Okay. Just tell me when to turn it on. Okay. Thank you.

STATEMENT OF JAMES PAGLIERI

MR. JAMES PAGLIERI: Jim Paglieri, engineer, Richland. I have thirty-five years of experience in the nuclear industry, about half of it at FFTF. I'll follow my written comments, but some details and the justification for some statements will not be given in my oral presentation because of time.

DOE should be commended for their decision to write an EIS and evaluate the facts on this extremely important national issue of the FFTF's future. FFTF's fate is an extremely important issue for a number of reasons, including the 104 billion annual cost of cancer in the U.S., and the statistic that's been mentioned that three out of four families will be affected by cancer.

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In addition to the items mentioned in the NOI, the No Action Alternative and Alternative 2, to use existing facilities, should address in detail the impacts to research and development. For example, FFTF is virtually the only reactor in the world that can carry out important nuclear waste conversion experiments.

In addition to taking into account the future increased demand for medical isotopes as described in the expert panel report, the increased growth in isotope usage in nonmedical applications such as agriculture, insect/disease control, and so on, should be further researched and factored into the studies/PEIS.

Ready for the viewgraph.

The viewgraph is taken from the expert panel's report on estimated isotope production and sales. And as you can see, it goes from roughly 100 million to 1.1 billion in twenty years. The EIS study is for thirty-five years, so it would be extended.

The period that's covered needs to be extended, as I mentioned. In order to give an appreciation for the estimated growth in isotope production, the curve from the expert panel should be included in the PEIS, replotted on the ordinary

linear graph paper as I have done. However — and I

don't have this in my written comments -- that without adequate isotope production, this graph and the benefits will not take place.

Thank you for the viewgraph.

U.S. capability to produce most of our isotope needs should be a goal. Also, isotopes that currently are only needed in research quantities should be provided. The isotopes that only FFTF can make in commercial quantities and with adequate specific activity should be factored into the PEIS evaluations.

reestablish a reliable domestic supply of Pu-238 is very prudent considering the uncertainty of Russian supplies and potential for low quality. However, the Pu-238 production objective of 5 kilograms per year should be increased to allow for more frequent and extensive missions, as well as allowing for manned missions. For example, the Planetary Society advocates much-expanded space exploration such as for mining minerals and so on. Hampering space exploration during the thirty-five year period to be covered by the PEIS due to inadequate Pu-238 supply would be very unwise.

The option of using a commercial

light water reactor to produce Pu-238 should take into account delays due to a number of adverse factors such as legal challenges and licensing, and whether any utility would be interested in doing it.

There are a number of negative factors that should be included in the evaluation of Alternative 4, construct new research reactor, such as the extreme difficulty in obtaining both initial and continuing funding for a very large project.

An Alternative 5 should be added:

Restart FFTF, utilize existing operational

facilities, and construct a new accelerator. Based
on the expert panel's estimate of future medical
isotope production extended to thirty-five years,
and other needs, the use of FFTF in conjunction with
existing operational facilities, and a new, possibly
small, accelerator may be necessary or desirable.

Also, an accelerator and FFTF would complement each
other on the range and efficiency of making some
isotopes and would assure continuous isotope supply
during facility outages.

The factor "Environmental Justice" that is listed in the NOI should be retained. Some environmental justice considerations include — and I'll just mention one — the availability of medical

1	isotope treatments for lower income populations if
2	the No Action or Alternative that would result in
3	FFTF termination are chosen.
4	THE FACILITATOR: Five minutes.
5	MR. JAMES PAGLIERI: In my opinion,
6	Alternative 1, to restart FFTF, will be clearly
7	shown to be the preferred alternative and have the
8	greatest benefits of any of the choices.
9	Thank you.
10	THE FACILITATOR: Thank you. Do you
11	want this to be put in the record? Thank you.
12	We're now at the 10:30 hour. We've
13	been at it a few hours, and I want to keep — I'd
14	like to see a show of hands of how many people have
15	been so patient with me they still want to comment.
16	I see one hand, two, three, and four, five. Okay.
17	So we'll start over here with the - yes, sir.
18	And then — I'm sorry, you said —
19	did you — yeah. Then you, here. Okay.
20	STATEMENT OF MICHAEL CONTINI
21	MR. MICHAEL CONTINI: Good evening.
22	My name is Michael Contini. I am a resident of
23	Franklin County. I'm an electrical engineer
24	employed at FFTF.

I will - I would like to thank the

Department of Energy for having a scoping meeting in the Tri-Cities. We, the residents of Benton and Franklin Counties, are the most immediate downstreamers or downwinders from Hanford and the FFTF.

In 1983, I was a cancer patient. It goes without saying that my family has a lot at stake here. I favor the alternative which makes use of the FFTF because it can safely supply the most diverse number and quantity of medical isotopes.

The programmatic environmental impact statement must include the following, and I'm probably alone in saying this one: a complete and categorical lifetime exclusion of any future mission for FFTF involving the production of any weapons materials such as plutonium or tritium. That means if DOD wants some, they can get it somewhere else.

A complete identification of all medical, industrial, and space mission isotopes, and the quantities, grams per year, which are to be produced in the first five or ten years of operation.

Included shall be a complete analysis of the radiological and chemical waste products and streams generated from the production of the target

material, to the isolation and final preparation of each isotope. This must also include the waste products associated with the operation of the FFTF core. Estimates of waste quantities must be considered as kilograms or liters of waste product per gram of the associated isotope, ready to be transported.

Under the alternatives, which do not include the use of FFTF, the PEIS must also include the above. In addition, it must contrast the production capability of each isotope being considered. In the case of the medical isotopes, it must assess the impacts of limited production or availability to the treatment and lives of cancer patients.

For all alternatives, a section must be included which identifies the plans and activities which will be put into place to minimize isotope production waste and reactor core waste, therefore minimizing the impact to the environment.

A commitment must be made, if a particular alternative is chosen, to include the detailed plans and programs in the authorization basis.

For the alternative including FFTF, I

suggest that a criterion for authorization must be the creation of a waste board. The charter of this board would be to research and supervise the implementation of methods to minimize final quantities of waste to be stored. Those would include process improvements, recycling, and finding external uses for the waste products.

This PEIS must include and address the concerns of all, and I truly mean this — even Gerry Pollet's concerns. Okay? Those that I have heard can be lumped into categories of safety, waste, and need. The DOE must not dismiss any scoping recommendations made by any individual.

In conclusion, the PEIS must present an overall picture of the benefits and limitations of each alternative and the cost of each to the environment. Humans are part of the environment; therefore, it is right and just to consider the impacts of medical isotope supply limitations to the humans with cancer.

Some contend that this is a regional issue. Wrong. Cancer is a national and international issue, with the availability of treatments being a supply and demand issue.

Remember, in a limited supply environment, those who

1	can pay foreign dictators, social elite,
2	political elite, Hollywood elite, the rich — get
3	the treatments. The rest of us will be left with
4	surgery, chemotherapy, beam radiation treatments,
5	and the well-known consequences of them.
6	Thank you.
7	THE FACILITATOR: Thank you.
8	Yes.
9	STATEMENT OF WAYNE BAKER
10	SIEMENS POWER CORPORATION
11	MR. WAYNE BAKER: My name is Wayne
12	Baker. I have a statement on behalf of Siemens
13	Power Corporation.
14	For those of you who may not be
15	familiar with our company, I will tell you that we
16	manufacture fuel assemblies for commercial nuclear
17	power plants, primarily located in the United State:
18	and the Far East. We employ about 730 people here
19	in Richland.
20	Since we are a nuclear company, I
21	will say from the outset that we have no vested
22	corporate interest in the Fast Flux Test Facility.
23	We are not a Hanford contractor, and it is unlikely

that we would ever supply fuel or services to the

FFTF. As the old saying goes, we have no dog in

24

this fight. However, as an interested third party and a corporate citizen of the Tri-Cities, we would like to express our opinion.

This evening and in other public meetings we have heard time and again a broad range of opinions from those with vested interests in the outcome, to those who oppose anything and everything involving the word "nuclear," regardless of what it is or where it is.

In the midst of this rhetoric, we encourage you to pay the most attention to the voices of those, often silent, who are the real benefactors of nuclear isotope technology. I speak of those who have been, and hopefully will be, helped in their fight against cancer and other diseases. To them, this is not just another lengthy public meeting because they are involved in a life-and-death struggle. On a personal note, I will say that my father was one of them; for him it is too late. But hopefully, it will not be too late for others like him.

We believe it is abundantly clear that both medical and industrial applications of nuclear technology offer potential worthy of exploration. It would indeed be a shame if the

1	United States does not develop these technologies to
2	their fullest potential. And we believe that the
3	FFTF can play a significant role in these important
4	research missions.
5	I have submitted for the record a
6	letter from another Siemens affiliate, namely

Thank you.

isotope production.

THE FACILITATOR: Is that one - is that different? Okay. Thank you.

Siemens Medical Systems Corporation, which expresses

their views on the potential of the FFTF for medical

Yes, sir.

STATEMENT OF TOM BURKE

MR. TOM BURKE: My name is Tom Burke.

I'm a resident of Kennewick, Washington. I'm here

tonight representing myself, but maybe taking the

lead from the young lady from the Heart of America,

I can say that I think I'm really here representing

thousands of my closest friends and relatives.

I would like to make just two comments related to the scope of the Nuclear Infrastructure PEIS.

The first comment is, I really question why the construction of the new reactor and

new accelerator should be addressed beyond a brief assessment of their capabilities.

We know that the Federal budget, and in particular the Department of Energy budget, is very limited, even to the point where there is a question whether the FFTF can be maintained in an adequate standby condition. If we can't afford to maintain FFTF or restart FFTF, then we certainly can't afford to build a new multi-billion dollar facility. Even if we could, why would we want to, if FFTF can accomplish those missions for a small fraction of the cost? A detailed evaluation of these new facilities is likely to increase the cost of the PEIS substantially. I believe that the funds from those studies should, instead, be used to

I, therefore, recommend that the new reactor and the new accelerator options be eliminated from further consideration.

My second comment is related to the proposed 100-megawatt operating power level. I believe that this power level was selected pretty arbitrarily, primarily on the basis of extending the fuel supply for the FFTF. However, I think that this is very shortsighted. I believe that the PEIS

should consider and allow for the possibility that the FFTF could be operated at a higher power level, up to and including its rated power of 400 megawatts.

The primary function of the reactor is to produce neutrons for material irradiation.

The rate of neutron production is basically proportional to the power level. And if neutrons are needed to be produced at a higher rate, then we should do it, even if that means we use up the fuel supply at a more rapid rate. I think we should point out that the cost of generating a neutron at low power is substantially higher than it is generating a neutron at high power.

Furthermore, there may be some missions, either nuclear research missions or increased irradiation missions for which the higher power operation would be highly desirable or maybe even required. The extensive safety analyses and the outstanding safety record of the facility fully support operation at up to 400 megawatts, and the PEIS should allow this, even if it's only for very limited periods of time.

Finally, although I know it's not the function of this meeting, I would really like to

1	voice my support for the restart of FFTF. It's an
2	outstanding facility with tremendous capabilities
3	and a near-perfect operating history. To throw away
4	such a valuable resource at a time when the existing
5	national and international nuclear capabilities are
6	insufficient to meet current and future needs is
7	absolutely insane, and is an inexcusable waste of
8	taxpayer money.
9	Thank you.
10	THE FACILITATOR: Thank you. Did you
11	have a copy of your statement that you'd like to
12	give us?
13	MR. TOM BURKE: I will mail it in.
14	THE FACILITATOR: Okay. Thanks.
15	We have how many more commenters?
16	Two - one, two, three - four people.
17	I'm coming to you, of course. Oh,
18	yeah. You were thinking you didn't want to play the
19	lottery, did you? Yeah, okay.
20	STATEMENT OF BILL MARTIN
21	TRI-CITY INDUSTRIAL DEVELOPMENT COUNCIL
22	MR. BILL MARTIN: My name is Bill
23	Martin, M-a-r-t-I-n. I'm here tonight representing
24	the Tri-City Industrial Development Council, also

known as TRIDEC, T-R-I-D-E-C. Our council consists

of over 350 members involved in business, labor, agriculture, the cities of Pasco, Richland, West Richland, and Kennewick, Benton and Franklin Counties, our three local port districts, and other professional organizations. We have been designated by the Department of Energy as the one voice speaking on behalf of the community.

TRIDEC strongly supports a PEIS for civilian nuclear energy research and development and medical isotope missions at the FFTF. The PEIS has been nationally accepted as the method to determine the feasibility of a program. TRIDEC supported siting the FFTF at Hanford in the mid-1960s. We have never regretted bringing this one-of-a-kind facility to Hanford.

In over ten years of operation, the FFTF never experienced an accident or incident that injured any worker. It was designed, engineered, and built to strict standards, and it established an outstanding performance record unmatched by any test reactor under DOE ownership. In short, we support the FFTF and this unbiased PEIS process.

I want to thank you for the opportunity to appear this evening. We've already submitted our written comments to your office.

1	Thank you.
2	THE FACILITATOR: Thank you.
3	I'll go all the way over here. I saw
4	a - yes, ma'am, come on up. Thank you.
5	STATEMENT OF SHERYL I. PAGLIERI
6	MS. SHERYL PAGLIERI: I'm Sheryl I.
7	Paglieri, housewife.
8	Thank you for the decision to prepare
9	an environmental impact statement, EIS, that will
10	address the Fast Flux Test Facility's future, and
11	for holding a hearing in Richland to listen to the
12	concerns of both proponents and opponents of the
13	restart.
14	Like many people, we have lost both
15	relatives and neighbors to cancer. Also, we have
16	some relatives and friends that are currently
17	suffering from cancer. In one week, three people we
18	heard about. The lifetime risk of cancer is one out
19	of two for men and one out of three for women.
20	Every thirty seconds, an American gets cancer.
21	There are a number of medical
22	isotopes that show great promise in treating cancer
23	and other diseases. However, without FFTF, many of
24	the isotopes and some treatments will not be

available.

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Richland is not a personal concern. The facility has an extremely good safety record, and according to the experts, there are many design features that will assure safe future operations. Also, the large containment dome assures that even in the extremely

unlikely event of an accident, radiation would be

Living in the vicinity of FFTF in

contained.

Also, considering that there are no radioactive liquid discharges to the ground from FFTF, and the four-and-a-half-mile distance to the Columbia River, drinking water that is taken from the

river by the City of Richland is not a personal concern.

Hanford waste cleanup and operation of FFTF can be effectively done at the same time. For example, with FFTF in standby, cleanup progress is being made and \$1.1 billion per year is being spent. FFTF is needed to safely carry out multiple missions, including medical isotope production, Pu-238 production, conversion of nuclear waste, testing of proliferation-resistant fuels, and life extension testing for commercial reactors. All of these missions should be fully addressed in the PEIS.

	161
1	Alternative 1, to restart
2	the FFTF, should be identified as the preferred
3	alternative. That is of a great importance to our
4	nation, neighbors, and friends, children and
5	grandchildren.
6	THE FACILITATOR: Thank you. Do you
7	have a copy? We got the copy, right. Thanks.
8	We got it, Charlotte. Yes.
9	There were a couple of other hands,
10	did I see, for comments? Yes, sir.
11	STATEMENT OF DICK HAMMOND
12	MR. DICK HAMMOND: Thank you. Dick
13	Hammond is the name. I'm an electrical engineer,
14	Masters degree from Washington State.
15	I have a great deal of history in
16	this area, and my opinions have been certified by
17	forty-five years of experience in Richland. I drink
18	the water here, I fish here and eat the fish. I
19	take care of all these risks, and I've been able to
20	handle my future very well.
21	I completed successful treatment last
22	summer in cancer, utilizing the linear accelerator,
23	and I think that's a direct result of the R&D with
24	FFTF, had really wonderful results from this.

Cancer is about people, as has been said earlier

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this evening.

Laurel Piippo mentioned a variety of things, and I concur fully with her concerns about cancer. I've had three bone scans, utilized technetium for every one of them, and in every case it came from Canada, even though the half-life was only a few hours, and it was very uncertain whether we would get it. The last time it was three hours late and I had to wait for it.

I listened to Bob Schenter and his concerns. I did engineering design and construction with FFTF and FMEF for twenty years, so I know what it means that useful isotopes can be produced, and that it is definitely not a risky business at all.

John Boland said that he's boated, swam, and fished in the Columbia River, and so have I. There are benefits to the use of nuclear medicines.

FFTF should restart; that's my fundamental position. The monies will all be well spent. A nuclear accelerator would require further development to R&D in order to fund that concern. I don't believe our budget reflects that at all. Only a small part of that would be necessary for FFTF restart.

This is not a threat to the Columbia

River from any nuclear isotopes, from tritium or any 1 other radioactive element - projections of nuclear, moderate or future, indicates that very clearly. 3 FFTF is an irreplaceable machine. Hanford is not the most radioactive in the U.S., as has been stated tonight, not at all - far from it. 6 I'm a father, in quotation -- well, that's a follow-up to those people who've said 8 they're a mother. I think I have equal interest and concern in my children. 10 I agree with the resolution of Dr. 11 Franco and his respected organization, that FFTF is 12 a likely thing to push. 13 Norm Buske made a very false 14 statement that FFTF is a bomb plant - very, very 15 16 wrong. There is a need for production of 17 isotopes, and FFTF is the logical place to do it. 18 Negligible risks would be created by FFTF. 19 20 Radioactivation is a natural fact, as George Ruge has said. I'm qualified in designing FFTF and FMEF; 21 I've been working on that for many years. The 22 transportation risk would be very minimum with FFTF 23

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under way.

As Sol Guttenberg comments, I am

qualified to judge and evaluate the staff of FFTF,

and I must agree that they have a very safe

operation. Ten years of awards in safe operation so

indicates that.

Walt Apley indicated the alternative to FFTFs are around, and they are naturally — that is, the radioactivity that comes from FFTF is a natural thing and is nothing to be fully excited about. The FFTF is economical, safe, and reliable.

Jim Paglieri, the engineer with thirty-five years here, Hanford FFTF, said FFTF should produce isotopes, and only FFTF can do this. The uncertain Russian supply is there, and the very high cost which is likely. There are several viable — variable alternatives, but all of them are much more expensive than FFTF would be.

THE FACILITATOR: Thirty seconds.

MR. DICK HAMMOND: To eliminate funds for the accelerator is an ideal way to save monies for our budget. FFTF is an outstanding facility and a vital machine. It's an inexcusable use of taxpayer money to do else — elsewhere than fund the evolution of FFTF.

As with Bob - Bill Martin, who is

the TRIDEC voice of the Tri-City community, FFTF has never had any accident or failure to it in its entire history. A good safety record and large containment dome is with FFTF. We should restart it. It's a very preferred alternative.

Thank you.

THE FACILITATOR: Thank you.

We have people with additional comments, so — all right, I'm just — I think you haven't gone yet, have you?

MR. ROBERT BURKE: No, I haven't.

THE FACILITATOR: Come on up, yeah.

No, I'm going to let him go before.

Right.

STATEMENT OF ROBERT BURKE

MR. ROBERT BURKE: Before I begin the comments for the record, I've taken a new job out at the plutonium finishing plant, and I note with some irony that I'm tasked with dealing with 4300 liters of solution that was stopped from being processed by the very people who are opposing the FFTF-type alternatives, and some of those other things that need to be done. But now we're going to end up paying considerably more to resolve those liquids that were not processed out at PFP.

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My name is Robert Burke, no relation to Tom Burke, although I enjoyed working with him for several years. I live in Kennewick.

Tonight we've heard discussions about costs. I daresay that the environmental activist who's outside now trying to prove that he is not incompetent, who tried to use the costs earlier to support his case, fought in the past to ensure that the NEPA process turned a blind eye to operating costs, but rather, focused on environmental costs. I should make clear I'm not suggesting that costs don't matter. In fact, costs, schedule, and technical maturity, combined with the programmatic environmental impact statement, will lead to the Record of Decision.

The responsibility of the Department of Energy is clear. That responsibility is mandated by the Federal law in the Atomic Energy Act. That responsibility, unless and until changed by law, is to provide a reliable supply of isotopes and services for medicine, industry, research, and space exploration. That responsibility, in the context of this programmatic environmental impact statement, is a given. The discussion should not be whether or not the Department will provide a reliable supply of

isotopes and services. The discussion should be how will the Department produce those isotopes and services.

To that end, the PEIS must focus on the environmental impacts of the alternatives, and it must focus on all the environmental impacts. For example, it must include the environmental impact of the new energy sources required to power new isotope-producing facilities.

Thank you.

THE FACILITATOR: Thank you.

At this point I'd like to know, is there anyone who has not commented — who would like to at this point? Yes, ma'am, go ahead.

STATEMENT OF MELODY JENKE

MS. MELODY JENKE: Waited all night, right? My name is Melody Jenke. And three years ago I was diagnosed with an incurable non-Hodgkin's lymphoma. I've been through two years of chemotherapies — thank God I haven't lost my hair yet. I've done monoclonal antibodies. And a year ago I was accepted into a treatment program at Virginia Mason to try out the "smart bullets." It was great. Compared to everything else I'd been through, it was a quick injection: wham-bam-thank-

1	you-ma'am — out of there. And two months out, I
2	had 90 percent shrinkage in tumor site. Three
3	months out, I had 100 percent remission. The only
4	downfall is, three months after that I had my cancer
5	back again.
6	So I vote on medical isotope
7	production at FFTF. I'd like it in-house. I'd like
8	it in $-$ on my side of the state. I know that a lot
9	of the isotopes do have short lives, so keep it
10	in-house. Let's do it.
11	Thank you.
12	THE FACILITATOR: Any additional
13	comments from anyone who has not gone yet? And you
14	wanted to have a brief -
15	MS. MARLENE OLIVER: Just real quick.
16	THE FACILITATOR: Okay, real quick,
17	right.
18	FURTHER STATEMENT OF MARLENE OLIVER
19	MS. MARLENE OLIVER: Well, too bad;
20	I'll just leave it there.
21	I just had a real quick comment. I'm
22	not a physicist; I know there have been a lot of
23	technical questions. My background is as a research
24	biologist with twenty years in the medical industry.

1	I'm asking that the DOE please check
2	references when you receive information. I'm just
3	going to use an example, not to disparage anyone.
4	There was a young lady who mentioned the National
5	Institutes of Medicine. I'd never heard of the
6	National Institutes of Medicine. When I went back
7	to ask her personally what the National Institutes
8	of Medicine was, she didn't know. Please keep that
9	in mind when you do your study. Please check your
10	references for validity.
11	Thank you.
12	THE FACILITATOR: Thank you. Okay,
13	thank you.
14	Any additional comments?
15	AUDIENCE MEMBER: I think she was
16	referring to the National Academy of Scientists -
17	Science Institution.
18	MS. MARLENE OLIVER: She didn't say
19	that.
20	THE FACILITATOR: Okay, that's fine.
21	Thank you. Okay, you'll bring me up — thank you.
22	Any additional comments on the scope
23	of the PEIS? Yes, sir.
24	STATEMENT OF DICK OHAVA
25	MR. DICK OHAVA: My name is Dick
26	Ohava.

I think something else needs to be 1 considered. The aerospace industry started out with 2 \$20 billion, and the return on the investment has 3 been tremendous. This investment needs to be looked at from that aspect, also. If you make this investment, what is the return? 6 7 Thank you. THE FACILITATOR: Thank you. 8 Okay, thank you. Any additional comments at this time? 10 If not, I'd just like to take - beg 11 your indulgence for a second, and thank everybody on 12 the team this week, the Department of Energy, our 13 court reporter, Frank and the crew, and all the 14 people who've worked hard, including the DOE people 15 who have been out here all week to make this a very 16 successful thing. But it was really successful 17 because of what a great, courteous group you were. 18 And thanks a lot. 19

Meeting adjourned.

(Whereupon, at 10:58 p.m. the meeting was concluded)

Thank you.

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CERTIFICATE

We hereby certify that this is the transcript of the public meeting called by the Department of Energy concerning its

NUCLEAR INFRASTRUCTURE

PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT

held on Thursday, October 21, 1999, in Richland, Washington, and that this is a full and correct transcription of the proceedings.

Karl Fuss, Reporter

William Wagner, Transcriber